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DePaul University, mlukasi1@depaul.edu

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THE ASSOCIATION BETWEEN TASK CONFLICT,
RELATIONSHIP CONFLICT, AND PEER PERFORMANCE APPRAISALS

A Thesis

Presented in

Partial Fulfillment of the
Requirements for the Degree of
Master of Arts

BY

MARC ANTHONY LUKASIK

JUNE, 2009

Department of Psychology
College of Liberal Arts and Sciences
DePaul University
Chicago, Illinois

THESIS COMMITTEE

Alice F. Stuhlmacher, Ph.D.

Chairperson

Suzanne T. Bell, Ph.D.

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VITA

The author was born in Dearborn, Michigan, on December 19, 1982. He graduated from Divine Child High School in 2001. He received his Bachelor of Arts degree from the University of Michigan–Dearborn in 2006, graduated with Honors and with Highest Distinction, and was named Honor Scholar of the Year in the discipline of Psychology. He received his Master of Arts degree in Industrial and Organizational Psychology from DePaul University in 2009.

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CHAPTER I

INTRODUCTION

Workplace Conflict

Work group or team-based activities have become an increasingly common practice within organizations, as teams are seen as critical for accomplishing challenging tasks and solving complex problems for organizations (Barrick, Stewart, Neubert, & Mount, 1998). Hackman (1987) defines a work group as having the following characteristics: 1) has more than two members, 2) is an intact social system with boundaries, so that members recognize themselves as a group and are recognized by others as a group, 3) has one or more tasks that are measurable, and 4) operates within an organization. Guzzo and Shea (1992) further define teams as ongoing, partly autonomous groups whose members have a joint responsibility for accomplishing a set of tasks. While researchers have drawn the distinction between groups and teams, the two terms are often used interchangeably in the literature when describing activities involving the coordination of multiple organizational members (i.e., work groups or work teams). When the distinction is made, however, teams are generally thought of as being more dynamic and adaptive, with members relying on each other to accomplish common goals, whereas groups entail less coordination and interdependence among members (Tannenbaum, Beard, & Salas, 1992). However, because the two terms are often not differentiated, the terms *work group* and *team* will be used interchangeably henceforth.

In the context of teams in the workplace, social and task interdependency are required of members, often resulting in interpersonal or tasks-related disagreements (Amason & Schweiger, 1997; Cosier & Rose, 1977; Guetzkow & Gyr, 1954; Jehn, 1997b; Kabanoff, 1991). As result, teams face the challenge of remaining productive in an atmosphere in which conflict may be present involving relationship- or task-related differences among employees.

Due to complex, interdependent interactions between team members, conflict often becomes a likely byproduct within teams (Forsyth, 1983; Jehn, 1995). Conflict has been defined as the tension between individuals due to real or perceived differences (Thomas, 1992; Wall & Callister, 1995). Researchers have attempted to classify different types of conflict and their subsequent workplace implications, particularly within the context of work groups. Guetzkow and Gyr (1954) make a distinction between substantive conflict and affective conflict, with the former involving discrepancies based on aspects of tasks performed by the group, and the latter involving interpersonal discrepancies between group members. Additional research has since been generated elaborating on this conflict typology, although at times employing variations in terminology (Cosier & Rose, 1977; Pinkley, 1990; Priem & Price, 1991; Wall & Nolan, 1986). At present, consensus in the scientific community appears to be in favor of a *task conflict* and *relationship conflict* distinction, and more recently acknowledgement of a third distinct form of conflict, namely *process conflict* (Jehn & Bendersky, 2003).

Types of Conflict

Task conflict. Task conflict is characterized by disagreement among group members regarding decisions, viewpoints, ideas, and opinions (Jehn & Bendersky, 2003; Simons & Peterson, 2000). Here, the task itself and issues related to the task are the focal point of disagreements. Examples of task conflict are conflicts about the distribution of resources, procedures and policies, judgments, and interpretation of facts (De Dreu & Weingart, 2003). Task conflict is thought to be precipitated by certain organizational structure factors, including conflict of specialization (e.g., salespeople versus engineers), work interdependence, competition over resources, goal differences, authoritative power, status inconsistencies, and employee jurisdiction ambiguities (Nelson & Quick, 2005). Historically, the labels used to describe task conflict have included such terms as cognitive conflict, substantive conflict, content conflict, realistic conflict, and structural conflict (Darnon & Butera, 2007; Jehn & Bendersky, 2003; Nelson & Quick, 2005).

Relationship conflict. Relationship conflict is described as the perception of interpersonal incompatibility between individuals, and it is often characterized by animosity, tension, and annoyance among members (Jehn & Bendersky, 2003; Simons & Peterson, 2000). Examples of relationship conflict are disagreements stemming from personal taste, political preferences, values, and interpersonal styles (De Dreu & Weingart, 2003). Additionally, relationship conflict may arise as result of individual differences in skills and abilities, conflicting personalities, perceptual differences, distinct values and ethics, emotions and moods displayed,

communication barriers, and cultural differences (Nelson & Quick, 2005).

Historically, relationship conflict has also been labeled affective conflict, relational conflict, socio-emotional conflict, and interpersonal conflict (Darnon & Butera, 2007; Guetzkow & Gyr, 1954; Priem & Price, 1991).

Process conflict. Process conflict is a third type of conflict that has recently been added to the body of conflict literature (Jehn, 1997a; Jehn & Mannix, 2001; Jehn, Northcraft, & Neale, 1999). Process conflict is conflict regarding how tasks should be accomplished by the team, including decisions regarding the distribution of responsibilities and delegation of tasks among group members (Jehn, 1997a). Such conflicts do not involve the actual content or substances comprising the task itself, but rather, involve the strategic approach toward accomplishing group objectives. According to Jehn (1997a), process conflict may be differentiated from the concept of task conflict, and shares similarities with past conceptualizations of distributive conflict (Kabanoff, 1991) and procedural complexity (Kramer, 1991). Despite the acknowledgement by some, process conflict has received no consensus in the empirical literature concerning its impact on team performance or on member reactions (Passos & Caetano, 2005). Some researchers choose to omit process conflict because it is often difficult to distinguish from task conflict (Behfar, Mannix, Peterson, & Trochim, 2008) and unclear whether models including process conflict are superior to those including only relationship and task conflict (Bendersky & Hays, 2008). Because process conflict has not been studied sufficiently enough to

warrant convincing theoretical consideration relating to the associations examined in the current study, process conflict was not examined.

Using a conflict typology including task and relationship conflict, the association between conflict and performance was examined. Conflict, as it is conceptualized, and its association with work performance has intrigued researchers for some time. This association was examined in the current study, with special consideration being given to potential moderator variables. In order to proceed, it is imperative to discuss performance as it is most commonly measured, beginning with an employee's performance appraisal.

Performance Appraisal

The performance appraisal is ubiquitous work-related tool used to assess the job performance of individuals or groups. Appraisals involve subjective judgments of performance, whether derived from supervisors, peers, or multiple sources (i.e., 360° feedback), resulting in output describing how well or how poorly an entity performed over some period of time. Performance appraisals are central to a number of work-related outcomes such as merit pay or bonuses, promotions, layoffs, and terminations (Cardy, 2004). The subject has received a great deal of attention in the literature due to a desire to attain procedural accuracy (e.g., Borman, 1978; Cardy & Dobbins, 1986) as well as to understand the complex nature of the cognitive processes involved (e.g., Feldman, 1981; Landy & Farr, 1980). In addition, employee productivity is valued by organizations,

which performance appraisals are used to gauge for subsequent administrative and developmental purposes (Cardy, 2004).

Peer Appraisals

While traditional performance appraisals involve managerial assessments of subordinates, recently, many organizations have incorporated 360° feedback (i.e., multisource feedback) in their performance appraisal practices (Murphy, 2008). Multisource feedback incorporates performance ratings from various sources, such as the self, supervisors, subordinates, peers, and sometimes even customers. Multiple sources may better illustrate an employee's contribution to group outcomes by capturing unique information from the perspective of each source (Fedor, Bettenhausen, & Davis, 1999).

Work group peers, in particular, may regularly engage in intense interactions with one another, and thus are able to observe an abundance of performance-related behaviors and outcomes (Barclay & Harland, 1995; Kane & Lawler, 1978; Saavedra & Kwun, 1993). It has been argued that peers may offer an accurate point of view for appraising performance due to having various rating perspectives and ample opportunities for observation (Murphy & Cleveland, 1991; Wexley & Klimoski, 1984). Peer appraisals are also noteworthy in team-based work situations because in some cases peers “may be the only ones who can provide relevant information on an employee's contributions to group outcomes” (p. 89; Fedor et al., 1999). Norman and Zawacki (1991) note the value of peer appraisals in improving employee outcomes such as productivity, commitment, and participation. Peers offer a potentially unique perspective, as peers often

work closely with other members and are also able to notice contributions to the group's ultimate outcomes.

Levels of Analysis – Individual vs. Group

While there is no uniform measure of group performance (Guzzo & Dickson, 1996), there are several ways in which group outputs may be gauged, some of which include quantity, quality, speed, and customer satisfaction measures (Hackman, 1987). By nature, all teams require some degree of joint responsibility among members for accomplishing output-related goals (Guzzo & Shea, 1992), and as result members have both an orientation toward individuals comprising the group, toward the work group, and also to the organization. Because of this, measures of interest (e.g., productivity, satisfaction) may be collected at the individual level or group level, or possibly even at the organizational level (De Dreu & Gelfand, 2002). Individual level measures involve providing a rating for fellow members of the group on an individual-by-individual basis (i.e., the perceived conflict between oneself and another member of one's team). Alternately, at the group level, a single conflict score is used to represent the group as a whole (i.e., a single score representing the perceived conflict occurring within one's *group*; for measurement samples see Duffy, Shaw, & Stark, 2000; Jehn 1994; Porter & Lilly, 1996). Despite this distinction, when examining conflict in teams, researchers have placed a disproportionately greater emphasis on group level performance outcomes, with far less attention devoted to outcomes at the individual level (Duffy et al., 2000). Duffy et al. (2000) suggest, "this state of affairs leaves a critical *gap*, the identification of the factors that

relate to individual satisfaction and performance levels in group contexts,” and that “the use of groups also has important implications for individual group member outcomes, themes that are underdeveloped in the literature” (p. 772). De Dreu and Van de Vliert (1997) similarly reinforce that researchers should consider the effects of conflict on performance at the individual level, the group level, and at the organizational level. Through the present, the *gap* mentioned by Duffy et al. (2000) has persisted; a literature review for the present study revealed no instances examining conflict at the individual level in conjunction with individual level performance outcomes. Instead, task and relationship conflict were found to have been examined exclusively at the group level when compared conjunctively with performance.

Because performance appraisals are most commonly used to assess individual performance (i.e., at the individual level) (Cardy, 2004), the current lack of consideration for individual level measures warrants attention. In group settings, individuals are able to contribute to group outputs to varying degrees of task interdependence (e.g., pooled, sequential, reciprocal, or intensive; for a review see Van de Ven, Delbecq, & Koenig, 1976). As result, within groups, members may interact with other members to varying frequencies and intensities. Likewise, members may experience conflict with other members of the group to varying degrees. Despite this, when examined in tandem, conflict measures (e.g., Duffy et al., 2000; Jehn 1994; Porter & Lilly, 1996) and performance measures (e.g., Amason, 1996; Amason & Mooney, 1999, De Dreu & Van Vianen, 2001; Janssen, Van de Vliert, & Veenstra, 1999) are both typically examined at the

group level. While this information provides valuable information at the level of the group, it may not necessarily represent the association at the level of the individual. Group level conflict measures do not account for the diversity of conflict experienced between individuals within a group; instead, ratings represent a single conflict score that is distributed equally across all group members.

Although conflict may be present within a group, it is unclear to what extent conflict occurs between any two given members. For instance, group measures do not clarify whether intragroup conflict occurs, for example, intensely between only two group members or moderately between all members of the group. The same line of reasoning can be extended to group performance measures, which also fail to account for the relative contribution of individuals within the group, which may vary (DeLeon, 2001). If one is interested in outcomes at the individual level, then measures at the level of the individual are warranted.

Performance Rating Characteristics

While the association between intragroup conflict and performance has been examined (De Dreu & Weingart, 2003), little research exists examining the potential role of conflict in *subjective* ratings of performance. In order to examine conflict in this context, it is important to note the distinction between *performance* and *performance appraisals*. In the context of work, performance has been defined as the “scalable actions, behaviors and outcomes that employees engage in or bring about that are linked with and contribute to organizational goals” (Viswesvaran & Ones, 2000, p. 216). In comparison, performance appraisals are measures that rely on a set of judgments used in conjunction with some metric

that evaluate employee behaviors or outcomes to some degree of excellence (Cardy, 2004). Performance appraisals serve as a representation of employee performance to be used by organizations for administrative or developmental purposes (Harris, Smith, & Champagne, 1995).

Objective vs. subjective performance measures. Performance measures may be characterized as either objective or subjective. Objective measures are direct measures of countable behaviors or outcomes (e.g., output quantity, absenteeism, tardiness; Bommer, Johnson, Rich, Podsakoff, & MacKenzie, 1995), minimizing reliance on human judgment. In contrast, subjective measures rely on the evaluative judgment of individuals who are thought to have observed a dimension of performance in some capacity (e.g., quality of customer service). It should be noted that in practice, both objective and subjective measures are commonly used to assess rater performance, with each having certain methodological advantages and disadvantages (for discussion see Murphy, 2008). Discussing the strengths and weaknesses of objective performance measures is beyond the scope of the current study, as the focus of the current study is on subjective measures of performance (i.e., those ratings involving human judgment). As result, further consideration will be limited to subjective measures of performance.

As previously noted, performance appraisals are, by nature, subject to human judgment. As a result, subjective ratings are subject to the fallibility of those judging (Murphy, 2008). Past research asserts that subjective judgments can be susceptible to personal, contextual, and psychometric influences, which

may reduce the accuracy of decision making (Borman, 1977, Cooper, 1981; Landy & Farr, 1980). While the degree to which conflict influences performance appraisal judgments is unclear, there is reason to suspect such an influence may be present. Conflict in any form can be perceived as uncomfortable to an individual, resulting in decreased member perceptions of cohesion and satisfaction with the group (Jehn, Chadwick, & Thatcher, 1997; Kabanoff, 1991), increasing anxiety (Jehn, 1997a) and reducing team viability by increasing the desire to disassociate from other group members (Jehn, 1995). While research has acknowledged several potential beneficial and detrimental performance outcomes associated with conflict, subjective assessments of performance in the presence (or absence) of conflict have yet to be thoroughly examined.

In the conflict-performance literature, there has been a preference in field settings toward using objective measures of performance (e.g., firm performance; Amason & Mooney, 1999; Barsade, Wade, Turner, & Sonnenfeld, 2000). In their meta-analysis examining conflict and performance, De Dreu and Weingart (2003) go so far as to exclude *all* subjective performance appraisals whenever possible in an effort to obtain performance data that requires minimal human judgment (although subjective performance ratings were included when objective ratings were unattainable). In field settings, when subjective performance ratings are relied upon, ratings are generally provided by supervisors or managers (e.g., Jehn, 1995; Pelled, Eisenhardt, & Xin, 1999). In lab settings, there has been a preference toward using independent raters (e.g., Jehn & Mannix, 2001; Porter & Lilly, 1996). Because few studies have gathered performance ratings from

sources other than these, performance ratings from several sources (e.g., self, peers, customers, subordinates) have been consistently neglected when examining the conflict-performance association. As result, the majority of studies examining both performance and conflict have necessarily relied on data combined across rating sources.

Levels of data collection. It may be helpful to illustrate the manner in which ratings are collected across rating sources and the subsequent methodological implications. In the literature, it is most common for group conflict ratings (which are nearly always provided by the group members themselves) to be compared with group performance ratings (which are nearly always gathered from sources *other than* the group members; e.g., supervisors, teachers, independent raters, and/or developmental records; De Dreu & Van Vianen, 2001; Jehn 1994; Jehn, 1995; Porter & Lilly, 1996). Such methodological preferences have resulted in a body of research combining conflict and performance ratings across sources or organizational levels. As result, there is scarce research examining conflict and subjective performance ratings jointly provided by work group members.

Combining conflict-performance ratings across sources or levels eliminates biases that might occur should affective reactions to conflict influence performance ratings. This may be beneficial to researchers who wish to minimize affective influences when analyzing the association between conflict and performance *outcomes*. However, if one is interested in determining the extent to which conflict between members might influence performance *ratings*, then these

methods offer little clarification. Data gathered across sources makes it virtually impossible to determine *if* and *to what extent* performance ratings are influenced by conflict. Research has also supported that observations and ratings *across* levels are likely to vary considerably more than *within* levels (Murphy, Cleveland, & Mohler, 2001). Borman (1974) suggests that raters from different organizational levels are oriented uniquely toward ratees, resulting in potentially dissimilar behavioral observations across levels. Research supports that combining data across levels is likely to result in poor inter-rater agreement, and that such data should not necessarily be treated interchangeably with data collected from similar levels (Heneman, 1986; Murphy et al., 2001). On the basis of logic, one may apply this notion to conflict and performance ratings gathered across sources or levels. Thus, in order to accurately estimate the effects of conflict on subjective performance appraisal ratings, conflict and performance ratings should be examined using responses jointly collected from the same source, namely members of the work group. Due to the scarcity of research that has done so, the current author aims to fill this void by conjunctively collecting task conflict, relationship conflict, and performance appraisal ratings from the same source, namely group members.

The Conflict-Performance Association – Theoretical Evidence

Prior to the 1990s, conflict in the workplace had generally been viewed as counterproductive, with little empirical evidence suggesting otherwise (Jehn & Bendersky, 2003). Early views suggest conflict to be uniformly harmful to

organizational functioning by means of impeding information gathering and decision making processes among team members (Argyris, 1976; Pondy, 1967). As a whole, conflict had been thought to reduce satisfaction among members stemming from tension and antagonism, subsequently distracting team members from task completion (De Dreu & Weingart, 2003). The negative association between overall levels of conflict and organizational outcomes (e.g., team productivity and satisfaction) has been supported (Gladstein, 1984; Saavedra, Earley, & Van Dyne, 1993; Wall & Nolan, 1986). Because of the overwhelming negative depiction of conflict, the majority of early conflict research sought to uncover precursors of conflict as well as develop practices aimed at reducing conflict (e.g., Brett, 1984; Schmidt & Kochan, 1972).

While a negative view of workplace conflict has persisted, more recently, researchers have provided theoretical rationale suggesting conflict may not be as uniformly negative as presupposed, and may actually be beneficial under some circumstances (Amason & Schweiger, 1994; Deutsch, 1973; Jehn & Bendersky, 2003; Schweiger, Sandberg, & Rechner, 1989). As result, a more comprehensive framework of workplace conflict has since been generated, with researchers further investigating the properties of conflict as well as various situational constraints on workplace outcomes. The distinction between relationship and task conflict offered by Jehn and Bendersky (2003) has provided compelling theory explaining why task conflict may be beneficial to organizations whereas relationship conflict should not.

Theoretical Outcomes of Task Conflict

Jehn and Bendersky (2003) suggest task conflict facilitates certain outcomes at both the individual and group level, some of which may be beneficial to the organization. At the individual level, having one's ideas challenged can evoke an increase in effort, enhance task focus, and increase divergent cognitive processes, although such outcomes may also be accompanied by increased anxiety and tension (Jehn & Bendersky, 2003). At the group level, when task conflict emerges, members may be forced to confront discrepancies in logic and other inefficiencies that would otherwise go unnoticed. Task conflict thus allows for divergent opinions, interpretations, and viewpoints to be articulated, potentially facilitating creativity (Jehn & Bendersky, 2003; Tjosvold, 1997). In addition, decision making quality has been found to improve in the presence of task conflict and devil's advocacy scenarios (Schulz-Hardt, Mayer, & Frey, 2002; Schwenk, 1990; West & Anderson, 1996), as task-related debates force teams to integrate and synthesize multiple points of view (Schweiger et al., 1989) and help to avoid groupthink (Turner & Pratkanis, 1994).

Theoretical Outcomes of Relationship Conflict

While there is reason to believe task conflict may be beneficial, relationship conflict has been thought of as uniformly detrimental toward both individual and group level organizational outcomes. The negative effects of relationship conflict on group satisfaction and commitment are well documented (e.g., Deutsch, 1969; Evan, 1965; Jehn, 1995; Wall & Nolan, 1986; for review see De Dreu & Van Vienen, 2001). Relationship conflict also negatively affects

group decision quality in three interrelated ways (Pelled, 1995). First, relationship conflict places restraint on the cognitive capacity allowed for information processing because attention is diverted away from work related activities to address relational disturbances, resulting in lost time and energy (Jehn & Bendersky, 2003; Jehn & Mannix, 2001). Second, relationship conflict limits group members' cognitive functioning by increasing their stress and anxiety levels, rendering members less effective in evaluating information (Staw, Sandelands, & Dutton, 1981). Third, relationship conflict makes members less receptive to the ideas of their counterparts, whom they may dislike, and attribute disagreements to the hostility and ill-will of those in opposition (Baron, 1991; Janssen et al., 1999). Jehn and Bendersky (2003) summarize the accumulated body of research, suggesting an overwhelmingly negative association between organizational outcomes and relationship conflict, a view that has been strongly reinforced in management pedagogy (De Dreu & Weingart, 2003).

The Conflict-Performance Association – Empirical Evidence

Meta-Analyses

In theory, task conflict is thought to potentially foster positive organizational outcomes while relationship conflict is thought to be exclusively detrimental. However, the nature of the relation between task and relationship conflict becomes puzzling to some degree when one considers that task and relationship conflict tend to be positively associated. In a meta-analysis conducted by De Dreu and Weingart (2003), a strong positive association between

relationship and task conflict was revealed ($k = 24, \rho = .54$), with no negative correlations being reported across all studies. Thus, from a managerial perspective, promoting task conflict may be ill-advised without a better understanding of the processes involved due to the risks associated with relationship conflict, should it also become escalated. As result of such perplexities, Simons and Peterson (2000) called attention to further understanding the mechanism by which task and relationship conflict operate, suggesting such mechanisms are not yet sufficiently understood at present.

Therefore, with these suppositions in mind, the following hypotheses are proposed:

- H1a: Member perceptions of intragroup relationship conflict will be positively associated with member perceptions of intragroup task conflict.
- H1b: Member perceptions of interindividual relationship conflict will be positively associated with member perceptions of interindividual task conflict.

While rational grounds exist in favor of the potential benefits of conflict (i.e., task conflict) on organizational outcomes, conclusions from empirical evidence have not been as supportive. In a meta-analysis conducted by De Dreu and Weingart (2003) the influences of task and relationship conflict on group member performance and satisfaction were examined. They found, as expected, that relationship conflict had a moderate, negative association with both performance ($k = 24, \rho = -.22$) and member satisfaction ($k = 14, \rho = -.54$).

However, contrary to theoretical rationale, task conflict operated similarly to relationship conflict in that it had a moderate, negative (rather than positive) association with both performance ($k = 25$, $\rho = -.23$) and member satisfaction ($k = 12$, $\rho = -.32$; De Dreu & Weingart, 2003). Additionally, of the 26 effect sizes examining task conflict and performance, only six were in the positive direction (only three of which reported $r > .10$), whereas zero of the 12 effect sizes measuring task conflict and satisfaction were positive (De Dreu & Weingart, 2003). Such findings raise serious doubt to the suggestion that task conflict may be uniformly beneficial to both group performance and member satisfaction.

Referent of Analyses – Individual vs. Group Measures of Conflict

As seen in Table 1, only a handful of studies have examined performance and conflict ratings in which both constructs were jointly rated by the same source. Among these studies, there is a distinction to be made regarding the referent of the measures. At times conflict and performance are examined on an individual-by-individual basis, with individuals being the referent of measures. These interindividual measures are those in which performance or conflict is reported using each group member separately as referents of appraisals (i.e., round robin fashion). In contrast, other instances exist in which performance or conflict are appraised using the group as a single referent (rather than appraising each individual comprising the group). Intragroup measures are those in which group members provide one overall performance rating for each dimension of interest that represents the group as a whole. In the collection of studies presented

in Table 1, all measures of conflict were collected at the group level whereas performance was collected either at the group or individual level, as indicated.

Table 1

Summary of Pearson-Product Moment Correlations Examining Performance Appraisals and Conflict Ratings Jointly Provided by Group Member

Author	Group		Individual	
	Performance		Performance	
	TC	RC	TC	RC
Amason (1996)	-.09	-.38**		
Duffy, Shaw, & Stark (2000)				-.18*
Janssen, Van de Vliert, & Veenstra (1999)	-.27**	-.51***		
Jehn, Chatwick, & Thatcher (1997)	-.13*	-.38*		
Pelled (1996)		-.28**		
Wilkins & London (2006)	.17	.00		

Note. TC = task conflict. RC = relationship conflict. Group Performance = performance appraisal of the group as a whole. Individual Performance = performance appraisal of each group member. Task conflict and relationship conflict were measured exclusively at the group level.

* = $p < .05$. ** = $p < .01$. *** = $p < .001$.

Despite the paucity of existing literature, researchers can deduce some conclusions regarding the influence of conflict on performance appraisals. At the group level, with the exception of one study ($r = .00$; Wilkins & London, 2006), performance ratings have been moderately negatively associated with relationship conflict (r 's ranging from $-.28$ to $-.51$). At the group level, with the same exception ($r = .17$; Wilkins & London, 2006), performance ratings have shared a weak-to-moderate negative association with task conflict (r 's ranging from $-.09$ to $-.27$). Research examining performance appraisals at the individual level is even scarcer; only one known study has examined individual performance appraisals with conflict ratings jointly provided by the same rating source (i.e., group members). In this study, Duffy et al. (2000) examined intragroup relationship conflict in conjunction with interindividual performance appraisals, finding a significant negative association ($r = -.18$). The association between task conflict and performance appraisals was not examined.

In reaction to the scarcity of research, I propose that additional research examining conflict and performance appraisals may be beneficial for three reasons. Additional research may 1) provide initial estimates of the association between interindividual relationship conflict and individual level peer performance appraisals, an association that has not yet received attention, 2) provide further support for the prevailing (moderately negative) associations between group performance appraisals and intragroup relationship and task conflict, and 3) examine the influence of additional factors suggested in the

literature to moderate the association between task conflict and performance (as reflected in performance appraisals).

Therefore, with these suppositions in mind, the following hypotheses are proposed:

- H2a: Member perceptions of intragroup relationship conflict will be associated with negative appraisals of group performance.
- H2b: Member perceptions of interindividual relationship conflict will be associated with negative appraisals of individual performance.
- H3a: Member perceptions of intragroup task conflict will be associated with negative appraisals of group performance.
- H3b: Member perceptions of interindividual task conflict will be associated with negative appraisals of individual performance.

In light of these predictions, it is important to note that the above assertions do not dismiss the possibility that under certain conditions, task conflict may be beneficial to performance. The variables under investigation in Hypotheses 3a and 3b (i.e., task conflict and performance ratings) have been more closely examined by attempts to uncover whether task conflict, under certain conditions, may be beneficial to performance. As result, potential moderators of the task conflict-performance association were also examined.

Potential Moderators of the Conflict-Performance Association

By definition, moderators are variables that affect the relationship between an independent (or predictor) variable and a dependent (or criterion) variable (Baron & Kenny, 1986). Moderating variables are important to consider because they enhance or reduce the influence of the independent variable on the dependent variable (Baron & Kenny, 1986). In the conflict-performance literature, several variables have been proposed as potential moderators, suggesting the association between conflict and performance may be more complicated than initially expected. Specifically, the following variables have been examined as potential moderators of the association between task conflict and performance outcomes: a) the nature of the task, b) member trust, and c) goal interdependence. No moderators have been proposed regarding the association between relationship conflict and performance because this association is thought to be uniformly negative.

Nature of Task

Researchers have proposed that the extent to which task conflict is beneficial or detrimental is dependent on the type of task the group performs (Brehmer, 1976). Steiner (1972) suggests group tasks may differ along several dimensions, one of which is whether the task performed is routine or complex. Routine tasks are low in variability and high in repetitiveness whereas nonroutine tasks may require more complex problem solving, entail fewer set procedures, and may be high in uncertainty (Van de Ven et al., 1976). Because task conflict has been theoretically linked to quality of decisions (Amason, 1996; Jehn, 1997a)

and increases constructive debate (Jehn et al., 1999), there is reason to believe task conflict may be beneficial in certain conditions, such as when teams engage in nonroutine tasks, but not when tasks are rather simple or do not involving much variation or member interpretation. Research has supported this notion; teams engaged in nonroutine tasks may benefit from task conflict whereas teams engaging in routine tasks appear to suffer (Jehn, 1995). Here, job routineness was derived based on the degree of routinization (Perrow, 1970), dimensions of task variety (Van de Ven et al., 1976), and skill-variety (Hackman & Oldham, 1975), and was applied to freight transportation management and work groups. Thus, the nature of the task performed appears potentially instrumental in moderating the adverse effects of conflict on group performance, and as result should be considered when examining task conflict with performance.

Therefore, with these suppositions in mind, the following hypotheses are proposed:

- H4a: Task routineness will moderate the association between member perceptions of intragroup task conflict and appraisals of group performance such that there will be a strong negative association when task routineness is high and a weak negative association when task routineness is low.
- H4b: Task routineness will moderate the association between member perceptions of interindividual task conflict and appraisals of individual performance such that there will be a strong negative

association when task routineness is high and a weak negative association when task routineness is low.

The proposed association between task conflict, performance appraisals, and task routineness at the group level (Hypothesis 4a) and at the individual level (Hypothesis 4b) is depicted in Figure 1.

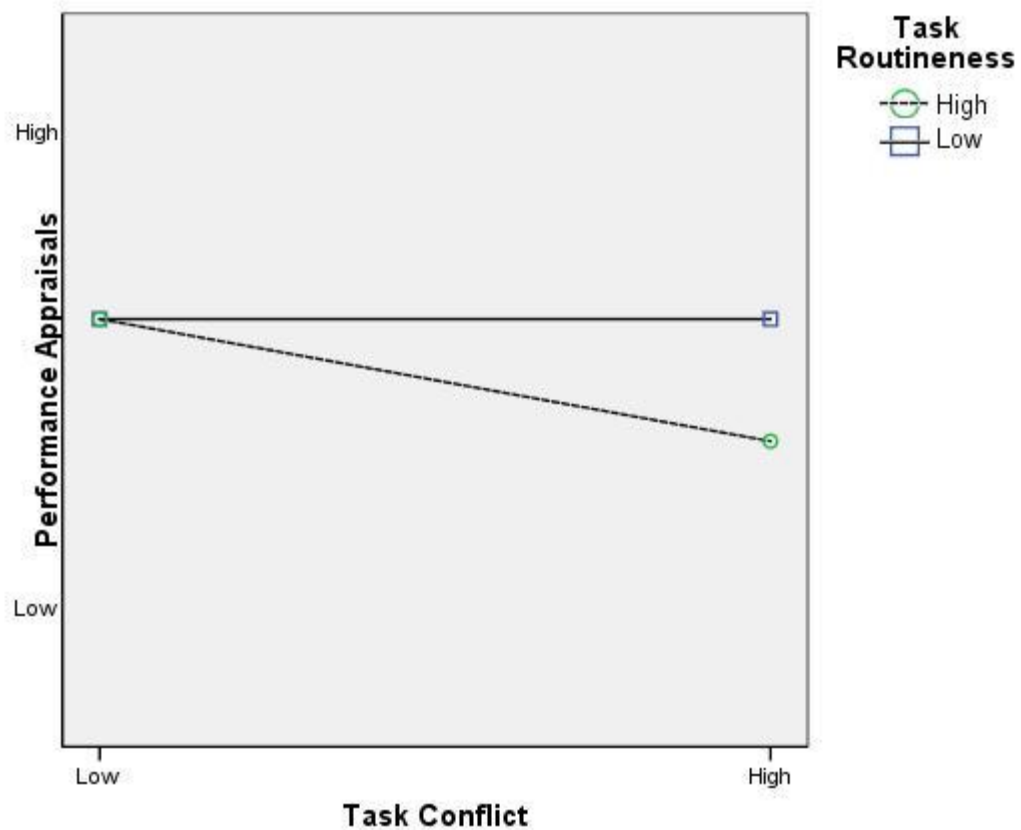


Figure 1. The Proposed Association between Task Conflict, Performance Appraisals, and Task Routineness (at both the group level and individual level).

Member Trust

In addition to the nature of the task, researchers have also examined relational properties of the group to determine circumstances in which task conflict may be beneficial. Torrance (1957) describes how decision makers often are not able to distinguish between task- and relationship-oriented disagreements. Simons and Peterson (2000) argue that task conflict leads to relationship conflict through a process of misattribution, describing that in the process of group interaction, members infer the intentions of other members through an attribution process. Ambiguous behaviors of the group or an individual are interpreted in a way that is consistent with one's expectations.

Trust has been proposed to play an instrumental role in the interpretation of ambiguous behaviors. Trust can appear in two forms, namely cognition-based trust and affect-based trust (Costigan, Insinga, Berman, Ilter, Kranas, & Kureshow, 2006). Cognition-based trust refers to a rational decision to trust or withhold trust of another employee based on past performance history and competence displays (Costigan, Ilter, & Berman, 1998; Lewis & Weigert, 1985; McAllister, 1995). In contrast, affect-based trust is tied to a more emotional component, involving an emotional investment in one another over time (Costigan et al., 1998, Lewis & Weigert, 1985; McAllister, 1995). A concern for the other party's wellbeing characterizes affect-based trust. While several authors have distinguished these types of trust, both are often used in combination in the conflict literature, with the distinction not being addressed (e.g., Porter & Lily, 1996; Simons & Peterson, 2000). To better clarify the role of trust in the conflict-

performance association, the current study examined both cognitive- and affect-based trust independently.

Trust, or the lack thereof, has been thought to influence the interpretation of ambiguous behaviors. When one person distrusts another, ambiguous behaviors are likely to be interpreted as hostile, malicious, or threatening, but not so when trust is present (Simons & Peterson, 2000). Thus, in the absence of trust, task conflict may be interpreted as a personal attack (Jehn, 1997a), biasing subsequent information processing and potentially facilitating self-fulfilling prophesy (for a review on this process see Fiske & Taylor, 1991). Research examining trust as a moderator of attributions has found that in the absence of trust, task conflict becomes misattributed as relationship conflict, whereas in the presence of trust, task conflict is not interpreted as relationship conflict (Amason & Sapienza, 1997; Simons & Peterson, 2000). Edmonson (1999) suggests that due to the psychological safety concern of members, trust and openness are beneficial toward solving problems and reaching consensus when task conflict is present. Additional research (e.g., De Dreu & Weingart, 2003; Jehn, 1992; Porter & Lilly, 1996) has supported that trust moderates the effects of task conflict on team performance; when trust is low, task conflict leads to deleterious performance, whereas when trust is high, the deleterious effects of conflict are not present. These findings summarize the association between trust, conflict, and performance, and should be considered when examining the association between trust, conflict, and *appraisals* of performance.

Goal Interdependence

In addition to trust, researchers have also examined goal interdependence as a moderator of task conflict on team performance. In the conflict management literature, goal interdependence is defined as the extent to which team member believes that other team members' goal attainment facilitates movement toward one's own goals (Weldon & Weingart, 1993). Deutsch's Theory of Cooperation and Competition (1973) distinguishes between three types of goal interdependencies: cooperative interdependent, competitive interdependent, and independent. Individual perceptions of conflict are linked to whether goals are perceived as cooperative, competitive, or independent of the goals of others. "Perceptions of goal interdependence affects interaction outcomes significantly because these perceptions affect their expectations and actions" (Alper, Tjosvold, & Law, 1998, p. 35). When cooperation is perceived, members become inclined to work together, seeking to meet the needs of the group with the potential to benefit all members (De Dreu & Gelfand, 2002). As result, as one person moves toward goal attainment, so too do others. Cooperative goal interdependence facilitates members to express views directly, listen open-mindedly, and accurately assume the perspective of others, allowing for higher quality solutions as well as future group viability (Tjosvold, 1998). Tjosvold, Poon, and Yu (2005) suggest that cooperation helps group members develop strong relationships and promote team effectiveness.

In contrast, competition is aimed at seeking to satisfy one's own solutions while working against others, whose goals may impede upon one's own successes

(De Dreu & Gelfand, 2002). When competition is perceived, members compete for productivity, quality, and recognition, with the success of another posing as a threat to one's own likelihood of success. Members are inclined to conclude that they may be better off when their peers act ineffectively (Alper et al., 1998). Member self-interests can become pitted against the interests of their peers, with members becoming increasingly concerned with displaying their own capabilities and promoting their own ideas to superiors. Reactions to competitive goal interdependence often do not allow members to fully incorporate the propositions of their teammates. Competitors may use persuasive arguments, positional commitments, threats, bluffs, and coercive power to achieve one's objectives, which may then lead to hostility, distrust, and negative interpersonal perceptions between members (De Dreu & Gelfand, 2002). In group settings, reactions to competition may include attempts to promote one's own goals at the expense of the group, as the desire to outperform one's colleagues takes precedence over group concerns (Tjosvold et al., 2005). As result, opposing viewpoints are more likely to be met with opposition and reaching consensus may become challenging. Research has supported that perceptions of cooperative goal interdependence are necessary for task conflict to have a positive influence on team effectiveness (Alper, Tjosvold, & Law, 2000; Barker, Tjosvold, & Andrews, 1988; Tjosvold, 1997). When cooperation is perceived, members are more likely than when cooperation is not perceived to view task disagreements between colleagues as directed toward facilitating a solution that is in the group's best interest. It is therefore important to consider the nature of group goal interdependence in

assessing whether conflict is beneficial or detrimental to team performance. These findings summarize individual reactions to goal interdependence, and should be considered when examining the association between cooperation, conflict, and performance appraisals.

Affective Reaction to Conflict

The extent to which the association between conflict and performance appraisals may be influenced by affective reactions to conflict is unclear. I propose that task and relationship conflict may influence performance appraisal ratings to the extent performance ratings become subject to affective reactivity (i.e., reactions involving liking or disliking others). Zajonc (1980) suggests affective reactions between individuals are primary, inescapable, and usually irrevocable. A number of researchers have suggested that interpersonal relations play a role in ratings of performance (Taggar & Brown, 2006; Tsui & Barry, 1986). When examining the association between affect and performance appraisals, Tsui and Barry (1986) found positive affect associated with the highest ratings (i.e., leniency; $M = 5.87$), moderate affect associated with moderate ratings ($M = 5.28$), and negative affect associated with the lowest ratings (i.e., severity; $M = 4.05$) across supervisors, subordinates, and peers. Tziner, Murphy, and Cleveland (2005) suggest that rating inaccuracy often has more to do with purposeful distortion than cognitive errors, effectively suggesting that raters at times attempt to achieve personal goals via the performance appraisal process. Jawahar and Williams (1997) summarize that raters may intentionally bias

performance appraisals to avoid providing negative feedback (Fisher, 1989), to avoid consequences associated with harsh accurate ratings, to obtain positive outcomes, or to motivate performers (Murphy & Cleveland, 1991). If affect is in fact inescapable and irrevocable (Zajonc, 1980) and tied to performance appraisals (Tsui & Barry, 1986), then it is unclear to what extent raters are able to appraise performance objectively under varying levels of conflict when ratings can also be used to serve personal or political motives (Longnecker, Sims, & Gioia, 1987).

An alternative perspective suggests that perhaps conflict is not as much a source of bias it is an antecedent of team dynamics. The job requirements of certain work groups (e.g., decision making or project teams) entail some degree of conflict in order to synthesize various perspectives, although some jobs require conflict to a lesser extent (e.g., production teams). As such, groups are often *required* to deliberate on tasks in order to overcome complexities, to develop innovative, successful solutions, or to serve as precautionary measures against errors in judgment. Here recognizing the difference between task and relationship conflict becomes of interest. Whereas task conflict may be intertwined with job-related member deliberations, and may be a *necessary evil* of the job, relationship conflict serves no purpose, and may be considered extraneous to job performance, which may explain why it is more strongly associated with dissatisfaction than task conflict (De Dreu & Weingart, 2003; Molinsky & Margolis, 2005).

As previously asserted, relationship conflict is viewed as exclusively detrimental to performance outcomes. In contrast, the effectiveness of task

conflict on performance is somewhat ambiguously interpreted. Some authors suggest individuals are able to distinguish between task and relationship conflicts (Jehn, 1997a; Jehn 1997b; Pinkley, 1990). Research has found that task conflict is less negatively related to team performance when task conflict and relationship conflict are weakly, rather than strongly, correlated (De Dreu & Weingart 2003). In spite of this, others suggest that because both types of conflict often occur simultaneously, in reality, people often do not distinguish between the two (Hocker & Wilmot, 1984). Jehn (1995) asserts, “Even if members realize positive outcomes, the conflictful group process leading to them, including critical evaluation, can cause dissatisfaction” (p. 209). To better understanding the association between task conflict and performance appraisals, a closer look at moderating variables is warranted. Conflict that is deemed necessary to group objectives may be more accepted than conflict deemed irrelevant or as a hindrance to job performance. Therefore, I propose that the extent to which conflict is perceived as beneficial or detrimental will depend on levels of the aforementioned moderators proposed (i.e., task routineness, trust, cooperative goal interdependence), and will be reflected in performance appraisals.

The Role of Moderators in the Conflict-Performance Appraisal Paradigm

Member Trust

Research has supported that targets whose behaviors are interpreted as sinister and distrusting tends to receive retaliation via reciprocated distrust (Creed & Miles, 1996; Zand, 1972). When trust is present, members are more likely to

accept disagreements and less likely to interpret conflict negatively. Simons and Peterson (2000) found support for this notion, that trust moderates the association between relationship conflict and task conflict. Specifically, when trust is present, task conflict is not interpreted as relationship conflict, and the detrimental influences of conflict on performance are no longer found (Simons & Peterson, 2000). Lira, Ripoll, Peiró and González (2007) suggest two factors accounting for trust as a moderator of the association between task conflict and performance. The first is that members do not fear that teammates will harm their interests, resulting in feelings of *safety* (Ilgen, Hollenbeck, Johnson, & Jundt, 2005). The second is that members feel confident that the group can be effective, resulting in feelings of *potency* (Guzzo, Yost, Campbell, & Shea, 1993). In the presence of task conflict, workers with trusting relationships should not react as negatively to task-related disagreements as those without trust; those with trust are more likely to realize member intentions are centered around improved solutions, and do not reflect interpersonal attacks. In addition, feelings of potency should theoretically orientate group members toward the realization that performance may improve as result of task conflict.

Therefore, with these suppositions in mind, the following hypotheses are proposed:

- H5a: Trust will moderate the association between member perceptions of intragroup task conflict and appraisals of group performance such that there will be a strong negative association when trust is low and a weak negative association when trust is high.

H5b: Trust will moderate the association between member perceptions of interindividual task conflict and appraisals of individual performance such that there will be a strong negative association when trust is low and a weak negative association when trust is high.

The proposed association between task conflict, performance appraisals, and trust at the group level (Hypothesis 5a) and at the individual level (Hypothesis 5b) are depicted in Figure 2.

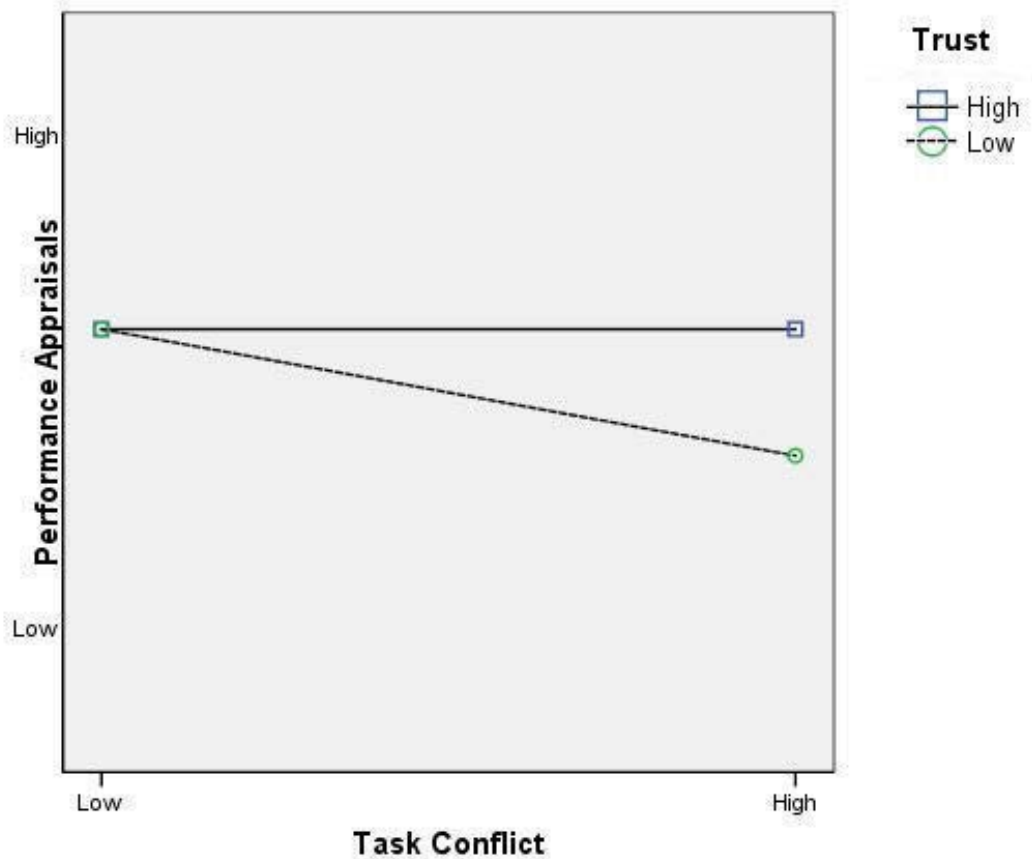


Figure 2. The Proposed Association between Task Conflict, Performance Appraisals, and Trust (at both the group level and individual level).

Goal Interdependence

The effects of goal interdependence have different effects depending on the context of goal achievement, namely whether group members perceive cooperation or competition (Doise & Mugney, 1984). By nature, task conflict involves disagreement about the distribution of resources, procedures and policies, judgments, and interpretation of facts (De Dreu & Weingart, 2003). When competition is perceived, task conflict could compromise one's self-competence should one's opinions be challenged, with valued outcomes being dependent on whether one's ideas prevail. In competitive situations (Butera & Mugny, 1995; Johnson & Johnson, 1985) or when competence is threatened (Mugney, Butera, Quiamzade, Dragulescu, & Tomei, 2003), individuals are motivated to protect their self-competence. However, when cooperation is perceived, members should not be as concerned with threats to self-competence, as members share a vested interest in working with, not against, one another. Taken together, these claims suggest ratings may be more severe if used as intentional retaliation to conflict when individuals are in competition for resources, reward allocations, or advancement opportunities, or may be subjectively intertwined in the encoding phases of gauging performance. However, the same cannot be said when cooperation is perceived, and raters are likelier to display a more positive outlook toward their colleagues.

Along these lines, a theoretical paradigm suggests that positional power plays a role in reactions to conflict. Nelson and Quick (2005) suggest that when equals experience meaningful conflict, there becomes a "focus on a win-lose

approach to the problem, and each party tries to maximize its power at the expense of the other party” (p. 290). This suggests that in the presence of conflict, perceptions of competition over goal achievement may result in appraisal ratings that are more severe, as raters may retaliate against competitors.

However, these authors did not specify whether severity is thought to precipitate from relationship conflict, task conflict, or both in such situations. Wong and Kwong (2007) found that certain rater errors such as leniency or severity may be the result of an intentional rating distortion, by which raters may achieve certain goals. It is well documented that relationship conflict is uniformly detrimental to performance (De Dreu & Weingart, 2003), and as such, cooperative goal interdependence is not thought to moderate the relationship conflict-performance association. In contrast, there is reason to believe the task conflict-performance appraisal association may be moderated by the presence of cooperative goal interdependence.

Therefore, with these suppositions in mind, the following hypotheses are proposed:

H6a: Cooperative goal interdependence will moderate the association between member perceptions of intragroup task conflict and appraisals of group performance such that there will be a strong negative association when cooperative goal interdependence is low and a weak negative association when cooperative goal interdependence is high.

H6b: Cooperative goal interdependence will moderate the association between member perceptions of interindividual task conflict and appraisals of individual performance such that there will be a strong negative association when cooperative goal interdependence is low and a weak negative association when cooperative goal interdependence is high.

The proposed association between task conflict, performance appraisals, and cooperative goal interdependence at the group level (Hypothesis 6a) and at the individual level (Hypothesis 6b) are depicted in Figure 3.

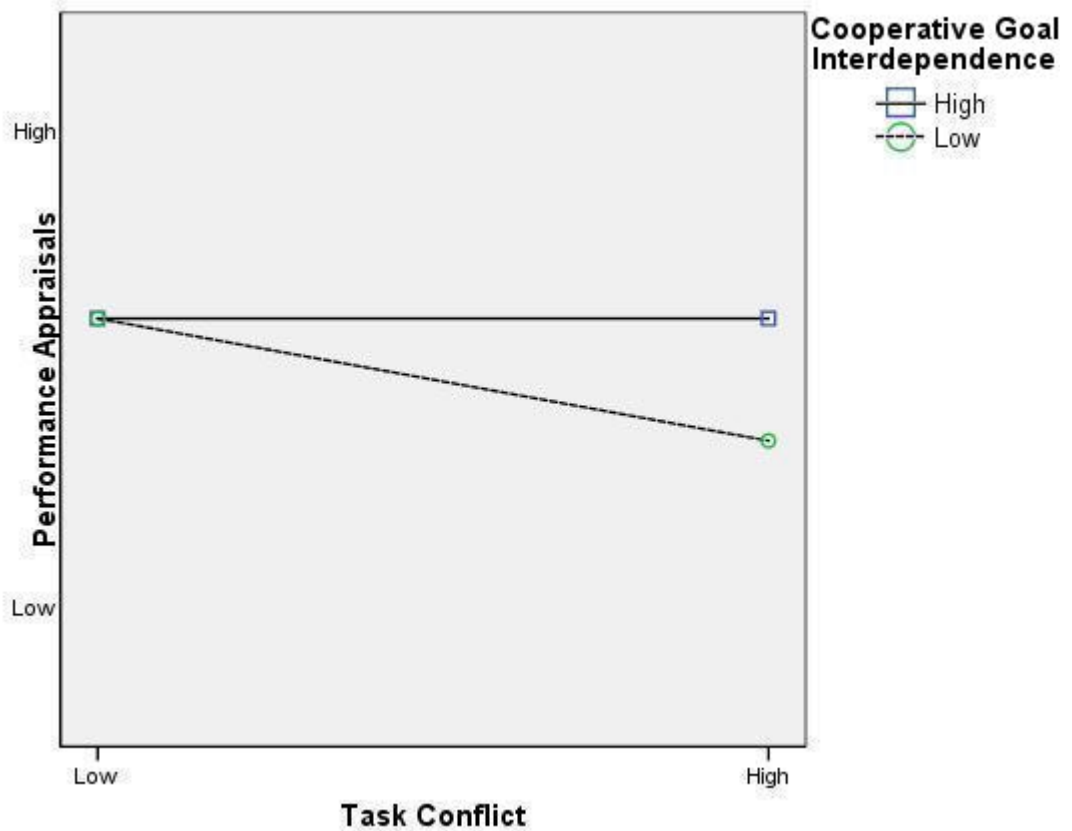


Figure 3. The Proposed Association between Task Conflict, Performance Appraisals, and Cooperative Goal Interdependence (at both the group level and individual level).

Trust with Cooperation

In regard to trust, Amason and Sapienza (1997) propose that when participant goals are oriented cooperatively, trust may further facilitate open discussion among team members. Openness of ideas with constructive critiquing from others is proposed to facilitate beneficial team performance and members having a better understanding the perspectives of one another, resulting in quality decisions and implementations (Alper et al., 1998; Tjosvold, 1982; 1998). Also,

with trust present, task conflict is not expected to lead to relationship conflict (Simons & Peterson, 2000). These propositions are consistent with research showing that task conflict facilitates positive team performance when teams have high perceptions of psychological safety (Edmondson, 1999), when norms of openness are shared (Jehn, 1997b; West & Anderson, 1996), and when task conflict is presented constructively in the form of devil's advocate (Schwenk, 1990). Because of these factors, performance, and subsequent performance appraisals, should be highest when both trust and cooperative goal interdependence are present among group members. Consistent with Hypotheses 4a and 4b, this phenomenon should be further exacerbated in conditions when task routineness is low rather than high.

Therefore, with these suppositions in mind, the following hypotheses are proposed:

H7a: The association between member perceptions of intragroup task conflict and appraisals of group performance will be best accounted for by examining three proposed moderators simultaneously, namely: 1) task routineness, 2) trust, and 3) cooperative goal interdependence. Performance appraisals will be highest when task routineness is low, when intragroup trust is high, and when group goals are highly cooperative. This model should account for more variance in peer performance ratings than task conflict and any single proposed moderator.

H7b: The association between member perceptions of interindividual task conflict and appraisals of individual performance will be best accounted for by examining three proposed moderators simultaneously, namely: 1) task routineness, 2) trust, and 3) cooperative goal interdependence. Performance appraisals will be highest when task routineness is low, when interindividual trust is high, and when members perceive individual goals are highly cooperative. This model should account for more variance in peer performance ratings than task conflict and any single proposed moderator.

Nature of Performance and Conflict

While a distinction between conflict and performance has been made, it is worthwhile to note that conflict and performance may not operate entirely independently of one another. Early team researchers suggested that group performance behaviors are comprised of three categories, those related to task fulfillment, individual behaviors (i.e., behaviors irrelevant or obstructive to the task), and group maintenance behaviors (Bales, 1950; Benne & Sheats, 1948). Group maintenance behaviors are theoretically related to conflict resolution, or what some authors term *affiliation* – the ability to develop and maintain relationships (Greguras, Robbie, Born, & Koenigs, 2008). Such behaviors often comprise a significant component of team performance (Greguras et al., 2008) – the extent to which group members work well with others or how well members

resolve differences. Thus, conflict regulation may be an inherent performance component in team settings and must be taken into consideration when comparing these variables conjunctively.

As a rating source, peers are potentially the best gauge of group performance behaviors, as they may be the most direct recipients of such behaviors, observing fellow group members more closely than other potential feedback sources (Wexley & Klimoski, 1984). Because peers are often interdependent throughout various project stages (Forsyth, 1983) peer performance appraisals may incorporate elements of performance that are more behavioral focused and less outcome focused, as the behaviors leading up to outcomes are likely to have been observed closely. During this time, conflict often becomes an inevitable byproduct within teams, as members may spend a considerable amount of time deliberating on issues related to interpersonal or task disagreements (Jehn, 1995). Hence, there is reason to suspect performance appraisals conducted by peers may be more influenced by conflict than appraisals from other sources.

Rationale

The current study examined the association between task conflict, relationship conflict, and appraisal of performance in the context of work teams. Following the distinction in the literature of the relationship- and task-conflict typology (Guetzkow & Gyr, 1954), research has demonstrated a renewed interest in the impact of conflict on group performance. In most cases, researchers gauging both performance and conflict in conjunction have attempted to minimize situations in which member conflict might influence performance appraisal ratings. This has been achieved by focusing on objective performance measures (e.g., De Dreu & Weingart, 2003) and by collecting performance ratings from sources other than those providing conflict ratings (e.g., Pelled et al., 1999). As result, while group member reactions to conflict are somewhat understood, the extent to which such reactions might be expressed in appraisals of performance is not. Thus, the current study examined the association between conflict on subjective ratings of peer performance by collecting ratings of conflict and performance from the same source, namely group members.

Prior to investigating the impact of conflict on subjective ratings of performance, it may be beneficial to first clarify the association between task conflict, relationship conflict, and objective/independent appraisals of performance. One may begin by mentioning that the association between task conflict and relationship conflict is somewhat perplexing. From a theoretically standpoint, researchers have suggested that task conflict can be beneficial to group outcomes but that relationship conflict should be exclusively detrimental

(Jehn & Bendersky, 2003). From an empirical standpoint, relationship conflict and task conflict are consistently positively associated (De Dreu & Weingart, 2003). In order to explain this conundrum, several potential moderators have been proposed that consider certain conditions in which task conflict might be beneficial to performance. Specifically, these moderators are: a) task routineness, b) inter-member trust, and c) goal interdependency. While task conflict may at times be beneficial, relationship conflict is expected to be detrimental to performance in all circumstances, as it reduces cognitive capacity, distracts from task completion, and impedes creativity (Pelled, 1995).

There has been some empirical support for the aforementioned moderator variables in the association between task conflict and performance. Specifically, research suggests that task conflict may be beneficial to performance a) at low levels of task routineness (Jehn, 1995), b) at high levels of inter-member trust (Porter & Lilly, 1996), and c) when goal interdependency is cooperative, not competitive (Tjosvold et al., 2005). Despite the empirical support these moderators have received, no research has examined all three concurrently. Thus, the current study incorporated several moderating variables in an effort to provide a comprehensive explanation of the association between conflict and subjective ratings of performance using ratings jointly provided by group members.

Several authors (e.g., De Dreu & Van de Vliert, 1997; Duffy et al., 2000) suggest that conflict research at the individual level is lacking, warrants further consideration at this level. As such, in the current study both conflict and performance were examined using two referents, namely, the group and an

individual group member. Intragroup conflict was examined in conjunction with intragroup performance (with consideration to group-referent moderators) whereas interindividual conflict was examined in conjunction with individual performance appraisals (with consideration to individual-referent moderators).

Statement of Hypotheses

- H1a: Member perceptions of intragroup relationship conflict will be positively associated with member perceptions of intragroup task conflict.
- H1b: Member perceptions of interindividual relationship conflict will be positively associated with member perceptions of interindividual task conflict.
- H2a: Member perceptions of intragroup relationship conflict will be associated with negative appraisals of group performance.
- H2b: Member perceptions of interindividual relationship conflict will be associated with negative appraisals of individual performance.
- H3a: Member perceptions of intragroup task conflict will be associated with negative appraisals of group performance.
- H3b: Member perceptions of interindividual task conflict will be associated with negative appraisals of individual performance.

- H4a: Task routineness will moderate the association between member perceptions of intragroup task conflict and appraisals of group performance such that there will be a strong negative association when task routineness is high and a weak negative association when task routineness is low.
- H4b: Task routineness will moderate the association between member perceptions of interindividual task conflict and appraisals of individual performance such that there will be a strong negative association when task routineness is high and a weak negative association when task routineness is low.
- H5a: Trust will moderate the association between member perceptions of intragroup task conflict and appraisals of group performance such that there will be a strong negative association when trust is low and a weak negative association when trust is high.
- H5b: Trust will moderate the association between member perceptions of interindividual task conflict and appraisals of individual performance such that there will be a strong negative association when trust is low and a weak negative association when trust is high.

- H6a: Cooperative goal interdependence will moderate the association between member perceptions of intragroup task conflict and appraisals of group performance such that there will be a strong negative association when cooperative goal interdependence is low and a weak negative association when cooperative goal interdependence is high.
- H6b: Cooperative goal interdependence will moderate the association between member perceptions of interindividual task conflict and appraisals of individual performance such that there will be a strong negative association when cooperative goal interdependence is low and a weak negative association when cooperative goal interdependence is high.
- H7a: The association between member perceptions of intragroup task conflict and appraisals of group performance will be best accounted for by examining three proposed moderators simultaneously, namely: 1) task routineness, 2) trust, and 3) cooperative goal interdependence. Performance appraisals will be highest when task routineness is low, when intragroup trust is high, and when group goals are highly cooperative. This model should account for more variance in peer performance ratings than task conflict and any single proposed moderator.

H7b: The association between member perceptions of interindividual task conflict and appraisals of individual performance will be best accounted for by examining three proposed moderators simultaneously, namely: 1) task routineness, 2) trust, and 3) cooperative goal interdependence. Performance appraisals will be highest when task routineness is low, when interindividual trust is high, and when members perceive individual goals are highly cooperative. This model should account for more variance in peer performance ratings than task conflict and any single proposed moderator.

CHAPTER II

METHOD

The research design was a nonexperimental survey designed to collect data on the following variables of interest: task conflict, relationship conflict, task routineness, trust (affective and cognitive), cooperative goal interdependence, and performance appraisal ratings. Conflict types and performance appraisals (as well as moderators trust and cooperative goal interdependence) were examined using both individual and group referents.

Participants

An *a priori* power analysis was conducted to determine adequate sample size. In order to achieve sufficient sample size for multiple regression having seven predictors at a medium effect size ($f^2 = .15$; Cohen, 1992), α error probability = .05, and statistical power = .80, a sample size of $n = 103$ was required. The actual sample size consisted of $n = 323$ participants. Participants included both students from a large private Midwest university as well as adult members of work groups. In order to qualify for participation, individuals must have been a member of a work group or team in the past six months. Qualification for a work group was based on Hackman's (1987) description as having all of the following characteristics: 1) has more than two members, 2) is an intact social systems with boundaries, so that members recognize themselves as a group and are recognized by others as a group, 3) has one or more tasks that are measurable, and 4) operates within an organization. Participant screening took

place prior to beginning the experiment, where potential participant were informed of the qualification criteria in order to proceed, after which participants had the discretion to continue or withhold participation.

Participation in this study was voluntary and all responses were collected anonymously. Participants were recruited using two methods. First, a snowball sampling technique was used to request the voluntary participation of working adults. A working adult was defined as any person over the age of 18 who has had part-time or full-time work experience in the past six months. These individuals were asked to participate only if they belonged to a “work team” that fit the aforementioned description of work groups (Hackman, 1987). Further details on the sampling technique of non-student working adults are provided in the *Procedure* section. The second sampling method was the recruitment of undergraduate students from a large private Midwest university. Students were recruited via the university subject pool, using membership in a work groups (Hackman, 1987) as a requirement for participation. Students recruited via the subject pool partially fulfilled an introductory Psychology course requirement by participating, earning one research credit in exchange.

Demographic information collected included the following: age, sex, race, team size, and job family. Mean participant age was 20.2 years ($SD = 4.1$), with no missing data. The majority of participants were female (73.4%, $n = 234$), while the rest were male (26.6%, $n = 85$), with four participants not reporting their gender. The majority of participants reported their race as White (72.8%, $n = 235$), whereas the next largest percentage was comprised of Some Other Race

(15.5%, $n = 50$), followed by Asian (3.4%, $n = 11$), Multiracial (3.1%, $n = 10$), American Indian or Alaska Native (2.2%, $n = 7$), Black or African American (2.2%, $n = 7$), and Native Hawaiian or Other Pacific Islander (.9%, $n = 3$). There were no missing data regarding race. Team size was also collected, indicating the amount of members in participants' work group (see Table 2). An item collecting the job family of participants' work groups revealed a diverse set of backgrounds. Specifically, 20 of 24 possible job families were represented, of which the four most common were Other (18.6%, $n = 60$), Educating, Training, and Library (11.5%, $n = 37$), Food Preparation and Serving Related (10.8%, $n = 35$), and Arts, Design, Entertainment, Sports, and Media (9.9%, $n = 32$), with no missing data.

Table 2

Number of Members Comprising Participant Work Group

	Frequency	Percent
3	67	20.7%
4	48	14.9%
5	30	9.3%
6	31	9.6%
7	9	2.8%
8	22	6.8%
9	5	1.5%
10	12	3.7%
More than 10	97	30.0%
Missing	2	0.0%
Total	323	100%

Measures

Task Conflict

Task conflict was measured using the 4-item task conflict subscale developed by Jehn (1994). The task conflict subscale was comprised of items 5-8 in the Jehn (1994) Conflict Scale, which is based on Rahim's (1983) intragroup conflict subscale. Responses were collected using two variations of the subscale, one with the group as the referent (items 5-8 in Appendix E) and the other with an individual as the referent (items 5-8 in Appendix J; individual referent items required rewording to be oriented toward an individual). The 5-point Likert scale is anchored by 1 = "Almost None" and 5 = "A Great Deal." All items were worded in such a way to add positively to an overall task conflict score, with higher values indicating higher task conflict. A sample item read, "How much disagreement is there in your work unit regarding the work being done?" The scale has previously demonstrated high internal consistency ($\alpha = .83$; Jehn, 1994) and is the most common measure of task conflict in the psychological literature. In the current study, Cronbach's $\alpha = .88$ for scores on the group measure and $\alpha = .94$ for scores on the individual measure.

Relationship Conflict

Relationship conflict was measured using the 4-item relationship conflict subscale developed by Jehn (1994). The relationship conflict subscale was comprised of items 1-4 in the Jehn (1994) Conflict Scale, which is based on Rahim's (1983) intragroup conflict subscale. Responses were collected using two variations of the subscale, one with the group as the referent (items 1-4 in

Appendix E) and the other with an individual as the referent (items 1-4 in Appendix J; individual referent items required rewording to be oriented toward an individual). The 5-point Likert scale was anchored by 1 = “Almost None” and 5 = “A Great Deal.” All items were worded in such a way to add positively to an overall relationship conflict score, with higher values indicating higher relationship conflict. A sample item read, “To what extent are personality clashes present in your work group?” The scale has previously demonstrated high internal consistency ($\alpha = .79$; Jehn, 1994) and is the most common measure of relationship conflict in the psychology literature. In the current study, Cronbach’s $\alpha = .89$ for scores on the group measure and $\alpha = .91$ for scores on the individual measure.

Task Routineness

Task routineness was measured using the 20-item Jehn (1995) Type of Task Scale (Appendix D). The scale is an adaptation and combination of Perrow’s (1970) index of routinization, Van de Ven et al.’s (1976) dimension of task variety, and the skill-variety dimension of the Job Diagnostic Survey (Hackman & Oldham, 1975). Items 2, 6, 9, 13, 14, 17, 19 were reversed so that all items added positively to an overall task routineness score, with higher values indicating higher task routineness. A sample item read, “How often is there a routine followed in your job?” The 5-point Likert scale was anchored by 1 = “Almost Never” and 5 = “Almost Always.” The scale has been shown to demonstrate high internal consistency ($\alpha = .88$; Jehn, 1995). In the current study, Cronbach’s $\alpha = .79$.

Trust

Trust was measured using nine items from the scale used by Costigan et al. (2006). Four items (items 1-4) were borrowed from McAllister's (1995) scale measuring affect-based trust. Additionally, five items (items 5-9) were borrowed from McAllister's (1995) scale measuring cognition-based trust. Responses were collected using two variations of the scale, one with the group as the referent (Appendix F; group referent items required rewording to be oriented toward the group) and the other with an individual as the referent (Appendix K). The 5-point Likert scale was anchored by 1 = "Strongly Disagree" and 5 = "Strongly Agree." All items added positively to respective trust subscale scores, with higher values indicating higher trust. A sample item from the cognitive-based subscale read, "I trust the team to do things I can't do myself." Both subscales have been shown to demonstrate high internal consistency (affect-based trust: $\alpha = .88$, cognition-based trust $\alpha = .89$; Costigan et al., 2006). In the current study, scores on the group measure of affect-based trust yielded Cronbach's $\alpha = .81$ while scores on the group measure of cognitive-based trust yielded $\alpha = .83$. Additionally, scores on the individual measure of affect-based trust yielded $\alpha = .92$ while scores on the individual measure of cognitive-based trust yielded $\alpha = .90$.

Goal Interdependence

Goal interdependence was measured using the 16-item scale developed by Alper et al. (1998). The scale was comprised of three subscales that report the extent to which members perceive their own goals are cooperative interdependent, competitive interdependent, and independent of the goals of other members.

Several authors suggest the three subscales represent three unique factors, and as result recommend against conceptualizing goal interdependence as a continuum (Alper et al., 1998; Chen, Tjosvold, & Liu, 2008; Wong, Tjosvold, & Yu, 2005). While the primary interest of the current study was cooperative goal interdependence, competitive and independent goal interdependencies were also collected. Responses were gathered using two variations of the scale, one with the group as the referent (Appendix G) and the other with an individual as the referent (Appendix L; individual referent items required rewording to be oriented toward an individual).

Five items (items 1-5) measuring cooperative goal interdependence involved the extent goals are mutual and rewards are shared. A sample group level item read, “Our team members’ goals go together.” The corresponding individual level item read, “(Insert name)’s goals go together with mine.” Five items (items 6-10) measuring competitive goal interdependence items involved the extent goals and rewards are incompatible. A sample group level item read, “Team members have a ‘win-lose’ relationship.” The corresponding individual level item read, “(Insert name) and I have a ‘win-lose’ relationship.” Six independent goal interdependence items (items 11-16) involved the extent goals and rewards are unrelated. A sample group level item read, “Team members like to get their rewards through their own individual work.” The corresponding individual level item read, “(Insert name) likes to get his/her rewards through his/her own individual work.” A 5-point Likert scale was used for all three subscale, anchored by 1 = “Strongly Disagree” and 5 = “Strongly Agree.” All

items added positively to each overall subscale, with higher values indicating higher levels of the construct. All three subscales have previously been shown to demonstrate high internal consistency (cooperative interdependent, $\alpha = .93$; competitive interdependent, $\alpha = .91$; independent, $\alpha = .92$; Chen, Tjosvold, & Liu, 2006). In the current study, internal consistency values for group goal interdependencies were $\alpha = .86$ for cooperative interdependent, $\alpha = .76$ for competitive interdependent, and $\alpha = .83$ for independent goals. For individual goal interdependencies, internal consistency values were $\alpha = .91$ for cooperative interdependent, $\alpha = .76$ for competitive interdependent, and $\alpha = .87$ for independent goals.

Performance Appraisal

Individual performance. Individual performance was measured using the 9-item task and outcome measure of individual performance developed by DeNisi and Peters (1996; Appendix M). This measure was chosen because it was developed specifically to be used across a variety of jobs. The measure is not specific to one job analysis and was adapted from dimensions used across several appraisal forms. In the study by DeNisi and Peters (1996), eight dimensions were chosen from a larger set of possible dimensions by management officials of participating organizations as most relevant for use in their company.

Performance dimensions included the following: reaction to pressure, communication skills, job knowledge, interpersonal skills, timeliness, problem solving, adaptability, and initiative. For this measure, a 5-point Likert-type response scale was used throughout, anchored by 1 = “Poor” and 5 =

“Exceptional.” Following the design of Varma, DeNisi, and Peters (1996), individual performance was indicated by two means. First, a performance composite was computed by taking an average of the task and outcome dimensions. Second, a final item was included assessing the target’s overall performance. Internal consistency for scores in the current study was Cronbach’s $\alpha = .85$.

Group performance. The measure developed by DeNisi and Peters (1996) was similarly used to appraise group performance. However, instead of focusing on a particular individual, participants were instructed to assess how the group as a whole typically performs (Appendix H). The same eight performance dimensions were averaged to form a composite in addition to a final item assessing overall group performance. This measure used the same 5-point Likert-type response scale anchored by 1 = “Poor” and 5 = “Exceptional.” Internal consistency for scores in the current study was Cronbach’s $\alpha = .82$.

Procedure

The current study used survey methodology to measure the association between participants’ experience with conflict and subsequent performance appraisals, using as referents the work group as well as individuals. The study was conducted electronically with data being sent to a secure server at the university through the university’s Quickdata website. Prior to conducting experimental trials, the study was pilot tested using graduate student volunteers from start to finish to uncover any unforeseen problems and to estimate the time

necessary to complete the experiments; no problems were detected and all completed the experiment within 15-20 minutes. The online web address was made available to participants via two primary recruitment samples: working adults and students participating in the Psychology subject pool. The majority of participants consisted of Psychology subject pool volunteers, although the total number of participants completing measures ($n = 323$) was less than the number of those signing up for the experiment via subject pool ($n = 330$). This discrepancy may have occurred as result of the study utilizing an external web address (for randomization purposes) to hyperlink subject pool participants to the data collection portion of the study, while not requiring a participant code. Thus, subject pool data collection relied on participants to complete the study *after* already having been granted participation credit, which may have resulted in some attrition.

The participation of working adults was gathered by generating a list of names and email addresses of individuals thought to have potentially worked in a group setting in the past six months. Adult workers were those known to the researcher to be involved in some capacity in a group setting (fitting the aforementioned criteria of ‘group’). This included individuals that the researcher was acquainted on a personal basis, such as coworkers, colleagues, friends, and relatives. Participation was voluntary and no participant information was collected, thus making participation voluntary and anonymous. This recruitment method was utilized to ensure a sufficient sample size and for variability in work background and age. Standardized recruitment emails (Appendix A) were sent

out to those email addresses generated. No further solicitation attempts were made aside from this email. The standardized email detailed the purpose of the email, the purpose of the study, the approximate time commitment of participation, the primary researcher's name and contact information, and a hyperlink to the study. Also, recipients were encouraged that they may forward the study to others they felt might qualify based on the four Hackman (1987) eligibility requirements of being a member of a work group.

The participation of introductory Psychology students was utilized via the university's Psychology subject pool. Participating individuals received one hour of research credit in partial fulfillment of a requirement of their Introduction to Psychology course. The study became available to participants in the second week of the academic quarter and remained accessible until the last day of classes (prior to finals week). Participants completed the study at their convenience. This study was one of many online studies available to students.

Prior to beginning the survey, all participants were informed of the survey's requirements (i.e., fulfilling Hackman's [1987] criteria of a work group). Qualifying individuals willing to participate followed a hyperlink to the study's website, where they completed the study anonymously. At this point, those participants consenting could begin participation. Participants were informed that they would engage in a series of questioning pertaining to their work group as a whole, which was defined using Hackman's (1987) criteria, and could include work groups, student project teams, volunteer groups, lab groups, or other groups (Appendix C). Participant work groups were those that participants had been a

member of within the last six months. If participants were members of more than one qualifying group, they were instructed to refer only to whichever group has occupied the greatest portion of their time. Participants were directed to refer to this same group for all subsequent group measures. With this in mind, participants completed Jehn's (1995) Type of Task Scale (Appendix D), which measured task routineness based on the typical activities experienced as a group member. Next, participants completed a series of intragroup measures, beginning with Jehn's (1994) Conflict Scale – Group Referent (Appendix E), which assessed task conflict and relationship conflict within the group. Participants then completed Costigan et al.'s (2006) Trust Scale – Group Referent (Appendix F), which determined levels of intragroup trust. Alper et al.'s (1998) Goal Interdependence Measure – Group Referent (Appendix G) was completed next, which assessed levels of cooperative goal interdependence within the group. The final intragroup measure, which determined group performance, was the Performance Appraisal Measure – Group Referent measure developed from the performance dimensions of DeNisi and Peters (1996; Appendix H).

After completing intragroup measures, participants were told that the next series of questions would pertain to one individual within their work group, and that participants would be selecting this individual. In order to select the individual, participants were randomly presented with one of four possible interindividual conflict scenarios (Appendix I). Using this scenario they chose an individual within their group (not including superiors) that best fit the description provided. The four scenarios were generated based on descriptors of relationship

conflict and task conflict found in Jehn's (1994) model of intragroup conflict. Each of the four scenarios described one form of interindividual conflict, namely either high task conflict, low task conflict, high relationship conflict, or low relationship conflict. Participants were instructed to refer to this group member whenever the phrase "Insert name" appeared.

Having selected a fellow group member to serve as a target, participants proceeded to a series of interindividual measures regarding this person. The first measure was Jehn's (1994) Conflict Scale – Individual Referent (Appendix J), used to measure interindividual task conflict and relationship conflict. Next, participants completed Costigan et al.'s (2006) Trust Scale – Individual Referent (Appendix K), which measured interindividual trust. The next measure completed was Alper et al.'s (1998) Goal Interdependence Measure – Individual Referent (Appendix L), which measured cooperative goal interdependence between individuals. Finally, participants completed a performance appraisal of the target group member using the Performance Appraisal Measure – Individual Referent developed from the performance dimensions of DeNisi and Peters (1996; Appendix M). This concluded the interindividual measures.

Lastly, participants completed a demographic questionnaire (Appendix N). Once all questionnaires were completed, participants arrived at a web page debriefing them of the current study (Appendix O). The debriefing described the purpose of the experiment, literature resources for those interested in further pursuing the topic, and the researcher's contact information. Participants were

thanked for their participation and were encouraged to print a copy of the debriefing form for their records.

CHAPTER III

RESULTS

This chapter presents a description of the results gathered in examining the associations between interindividual and intragroup task and relationship conflict and performance appraisals, with consideration to several moderating variables. All hypothesis testing was conducted using significance levels of $p < .05$ in the one-tailed direction specified. Standards used to interpret correlation statistics were based on Salkind (2000). Standards used to interpret effect size statistics were based on Green and Salkind (2005).

Interindividual Condition Assignment

Cell counts. Using JavaScript web programming, a hyperlink randomizer was used to direct participants into one of four possible interindividual conflict scenario conditions. Participants (total $n = 323$) were randomly assigned to conditions as follows: High Task Conflict (25.1%, $n = 81$), Low Task Conflict (22.3%, $n = 72$), High Relationship Conflict (28.2%, $n = 91$), Low Relationship Conflict (24.5%, $n = 79$).

Manipulation check. A manipulation check was introduced to determine the extent to which the individual selected as a target for interindividual responses fit the description provided. This was assessed by an item stating, “How well does the person you have chosen represent the description provided in the above statement?” Responses were collected on the following scale: 1 = “Poorly,” 2 = “Only Slightly,” 3 = “Moderately,” 4 = “Quite A Bit,” and 5 = “To a Great

Extent.” On average, participants felt that the conflict description represented conflict with their target moderately or quite a bit ($M = 3.47$, $SD = 1.23$).

A one-way ANOVA was used to determine whether the aforementioned representativeness item varied as a function of the conflict scenario presented. The analysis indicated there was a significant between subjects effect, and that this effect was strong ($F[3, 317] = 3585.91$, $\eta^2 = .28$, $p < .001$). Tukey HSD post hoc tests revealed that participants rated the target’s representativeness higher in both the low task conflict condition ($M = 4.22$) and low relationship conflict ($M = 4.10$) than in both the high task conflict ($M = 2.86$) and high relationship conflict condition ($M = 2.84$). There were no significant differences in target representativeness between high relationship conflict and high task conflict conditions nor between low relationship conflict and low task conflict conditions. This suggests that within work groups, the prevalence of low interindividual conflict (i.e., both task and relationship) was disproportionately greater than the prevalence of high interindividual conflict.

Descriptives

The means, standard deviations, and cell counts for all measures are shown in Table 3. The means, standard deviations, and cell counts for variables in all conflict conditions are shown in Table 4. Correlations between demographics and group measures are shown in Table 5. Correlations between demographic and individual measures are shown in Table 6. In addition, correlations between group measures and individual measures are shown in Table 7.

Table 3

Mean and Standard Deviations for Group and Individual Measures

Variable	Group Referent			Individual Referent		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Task Conflict	312	2.40	.87	315	2.24	1.08
Relationship Conflict	318	2.15	.94	311	1.96	1.01
Task Routineness ^a	293	3.27	.48	293	3.27	.48
Affective-Based Trust	314	3.61	.81	315	3.39	1.07
Cognitive-Based Trust	311	3.74	.69	310	3.67	.96
Cooperative Goal Interdependence	310	3.92	.69	315	3.65	.87
Competitive Goal Interdependence	310	2.64	.72	309	2.67	.81
Independent Goal Interdependence	314	2.97	.75	305	3.00	.85
Performance	310	3.70	.59	315	3.52	.85

Note. All measures were collected on 5-point scales, with higher values indicating higher levels of a construct.

^a This measure contained items related to the group and to the individual, with several items being ambiguously oriented.

Table 4

Mean and Standard Deviations for Group and Individual Measures by Conflict Condition

Variable	High Task Conflict			High Relationship Conflict			Low Task Conflict			Low Relationship Conflict		
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>
Target Represents Statement	80	2.86	1.10	90	2.84	1.27	72	4.22	.72	79	4.10	.96
Task Routineness	69	3.19	.43	82	3.37	.49	67	3.28	.52	75	3.24	.47
G Task Conflict	77	2.48	.84	85	2.38	.94	71	2.29	.79	79	2.42	.90
G Relationship Conflict	80	2.27	.92	90	2.16	.96	70	2.06	.86	78	2.10	1.00
G Affective-Based Trust	80	3.56	.79	88	3.54	.82	69	3.73	.78	77	3.64	.85
G Cognitive-Based Trust	78	3.77	.69	86	3.57	.70	72	3.84	.64	75	3.80	.72
G Cooperative Goal Interdependence	78	3.92	.69	88	3.75	.61	69	4.04	.67	75	4.00	.78
G Competitive Goal Interdependence	79	2.61	.65	90	2.69	.63	67	2.60	.78	74	2.64	.84
G Independent Goal Interdependence	76	2.95	.70	90	3.10	.67	70	2.90	.81	78	2.90	.82
G Performance	76	3.73	.60	88	3.63	.55	70	3.75	.58	76	3.73	.62
I Task Conflict	80	2.74	.98	91	2.56	1.10	67	1.62	.82	77	1.92	.98
I Relationship Conflict	77	2.41	1.02	88	2.30	1.07	71	1.39	.71	75	1.64	.80
I Affective-Based Trust	81	2.93	.94	87	2.74	.92	70	3.99	.75	77	4.05	.94
I Cognitive-Based Trust	75	3.44	.90	88	3.17	.90	69	4.23	.71	78	3.96	.91
I Cooperative Goal Interdependence	79	3.52	.83	89	3.14	.86	70	3.94	.61	77	4.12	.78
I Competitive Goal Interdependence	74	2.90	.68	88	3.05	.67	71	2.24	.70	76	2.40	.87
I Independent Goal Interdependence	73	3.21	.75	89	3.29	.77	69	2.78	.79	74	2.64	.91
I Performance	77	3.30	.79	89	3.12	.84	71	3.89	.61	78	3.85	.84

Note. G denotes measures using the group as a referent. I denotes measures using an individual as a referent.

Table 5

Correlations Among Demographics and Group Measures

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	—											
2. Gender	-.01	—										
3. Number of Teammates	-.07	.19**	—									
4. G Task Conflict	.03	-.09	-.04	(.88)								
5. G Relationship Conflict	.11	-.00	.10	.69**	(.89)							
6. Task Routineness	-.07	.08	.31**	-.17**	-.01	(.79)						
7. G Affective-Based Trust	-.08	.05	.17**	-.28**	-.27**	-.11	(.81)					
8. G Cognitive-Based Trust	-.01	.06	.09	-.41**	-.43**	.02	.60**	(.83)				
9. G Cooperative Goal Interdependence	-.14*	.03	.08	-.26**	-.29**	-.07	.62**	.63**	(.86)			
10. G Competitive Goal Interdependence	.06	-.02	.02	.49**	.53**	.08	-.41**	-.44**	-.44**	(.76)		
11. G Independent Goal Interdependence	.10	-.01	.09	.21**	.25**	.21**	-.37**	-.35**	-.48**	.52**	(.83)	
12. G Performance	-.07	.02	.09	-.37**	-.34**	.09	.48**	.66**	.56**	-.37**	-.30**	(.85)

Note. Diagonals represent internal consistency reliabilities (Cronbach's α). G denotes measures using the group as a referent. Coding for Gender was as follows: Male = 1, Female = 2. Samples range from $n = 293$ to $n = 318$ (see Table 3).

* $p < .05$. ** $p < .01$.

Table 6

Correlations Among Demographics and Individual Measures

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	—											
2. Gender	-.01	—										
3. Number of Teammates	-.07	.19**	—									
4. I Task Conflict	-.01	-.13*	-.06	(.94)								
5. I Relationship Conflict	.01	-.05	.04	.79**	(.91)							
6. Task Routineness	-.07	.08	.31**	-.04	.04	(.79)						
7. I Affective-Based Trust	.01	.05	-.01	-.62**	-.63**	-.08	(.92)					
8. I Cognitive-Based Trust	.05	.10	.03	-.62**	-.59**	.02	.73**	(.90)				
9. I Cooperative Goal Interdependence	.01	.07	.00	-.51**	-.50**	-.10	.72**	.66**	(.91)			
10. I Competitive Goal Interdependence	-.07	-.06	.05	.58**	.51**	.03	-.53**	-.51**	-.49**	(.76)		
11. I Independent Goal Interdependence	.00	-.05	.12*	.49**	.44**	.13*	-.52**	-.45**	-.54**	.65**	(.87)	
12. I Performance	.02	.03	.06	-.59**	-.53**	.05	.68**	.78**	.60**	-.44**	-.42**	(.92)

Note. Diagonals represent internal consistency reliabilities (Cronbach's α). I denotes measures using an individual as a referent.

Coding for Gender was as follows: Male = 1, Female = 2. Samples range from $n = 293$ to $n = 315$ (see Table 3).

* $p < .05$. ** $p < .01$.

Table 7

Correlations Among Group and Individual Measures

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. G Task Conflict	(.88)											
2. G Relationship Conflict	.69**	(.89)										
3. G Affective-Based Trust	-.28**	-.27**	(.81)									
4. G Cognitive-Based Trust	-.41**	-.43**	.60**	(.83)								
5. G Cooperative Goal Interdependence	-.26**	-.29**	.62**	.63**	(.86)							
6. G Competitive Goal Interdependence	.49**	.53**	-.41**	-.44**	-.44**	(.76)						
7. G Independent Goal Interdependence	.21**	.25**	-.37**	-.35**	-.48**	.52**	(.83)					
8. G Performance	-.37**	-.34**	.48**	.66**	.56**	-.37**	-.30**	(.85)				
9. I Task Conflict	.46**	.43**	-.28**	-.32**	-.28**	.34**	.22**	-.31**	(.94)			
10. I Relationship Conflict	.38**	.45**	-.27**	-.38**	-.29**	.34**	.17**	-.28**	.79**	(.91)		
11. I Affective-Based Trust	-.16**	-.18**	.40**	.40**	.37**	-.24**	-.25**	.36**	-.62**	-.63**	(.92)	
12. I Cognitive-Based Trust	-.26**	-.23**	.31**	.44**	.38**	-.23**	-.22**	.41**	-.62**	-.59**	.73**	(.90)

con't

Table 7

Correlations Among Group and Individual Measures (con't)

Variable	1	2	3	4	5	6	7	8	9	10	11	12
13. I Cooperative Goal Interdependence												
14. I Competitive Goal Interdependence												
15. I Independent Goal Interdependence												
16. I Performance												
13. I Cooperative Goal Interdependence												
14. I Competitive Goal Interdependence												
15. I Independent Goal Interdependence												
16. I Performance												
13. I Cooperative Goal Interdependence												
14. I Competitive Goal Interdependence												
15. I Independent Goal Interdependence												
16. I Performance												

Note. Diagonals represent internal consistency reliabilities (Cronbach's α). G denotes measures using the group as a referent. I denotes measures using an individual as a referent. Samples range from $n = 293$ to $n = 315$ (see Table 3).
 $*p < .05$. $**p < .01$.

Hypothesis 1(a-b)

1a) Group relationship conflict and task conflict. Hypothesis 1a stated that member perceptions of *group* relationship conflict will be positively associated with member perceptions of *group* task conflict. Hypothesis 1a was tested by conducting a Pearson product-moment correlation between relationship conflict and task conflict, both collected with the *group* as the referent. Hypothesis 1a was supported, as analyses indicated the correlation was significant and strong ($r = .69, p < .001$). This suggests that higher levels of *group* relationship conflict are associated with higher levels of *group* task conflict.

1b) Individual relationship conflict and task conflict. Hypothesis 1b stated that member perceptions of *individual* relationship conflict will be positively associated with member perceptions of *individual* task conflict. Hypothesis 1b was tested by conducting a Pearson product-moment correlation between relationship conflict and task conflict, both collected with an *individual* as a referent. Hypothesis 1b was supported, as analyses indicated the correlation was significant and strong ($r = .79, p < .001$). This suggests that higher levels of *individual* relationship conflict are associated with higher levels of *individual* task conflict.

Hypothesis 2(a-b)

2a) Group relationship conflict and performance ratings. Hypothesis 2a stated that member perceptions of *group* relationship conflict will be negatively associated with appraisals of *group* performance. Hypothesis 2a was tested by conducting a Pearson product-moment correlation between relationship conflict

and individual performance appraisals, both collected with the *group* as the referent. Hypothesis 2a was supported, as analyses indicated the correlation was significant, and the association was weak, although approaching moderate ($r = -.34, p < .001$). This suggests that higher levels of *group* relationship conflict are associated with lower levels of *group* performance ratings.

2b) Individual relationship conflict and performance ratings.

Hypothesis 2b states member perceptions of *individual* relationship conflict will be negatively associated with appraisals of *individual* performance. Hypothesis 2b was tested by conducting a Pearson product-moment correlation between relationship conflict and individual performance appraisals, both collected with an *individual* as a referent. Hypothesis 2b was supported, as analyses indicated the correlation was significant and moderate ($r = -.53, p < .001$). This suggests that higher levels of *individual* relationship conflict are associated with lower levels of *individual* performance ratings.

Hypothesis 3(a-b)

3a) Group task conflict and performance ratings. Hypothesis 3a stated that member perceptions of *group* task conflict will be negatively associated with appraisals of *group* performance. Hypothesis 3a was tested by performing hierarchical regression in which performance appraisals were regressed on task conflict, both using *group* referents.

The following formula, $\hat{Y} = b_0 + b_1X_1$, illustrates this regression block (in

what later becomes a hierarchical model; see Hypotheses 4a-b, 5a-b, 6a-b, 7a-b). This step in the regression model is listed below (Equation 1).

$$\text{Performance Appraisal} = b_0 + b_1 (\text{Task Conflict}). \quad (1)$$

The regression analysis yielded $R^2 = .14$, $F(1, 298) = 46.9$, $p < .001$, indicating that *group* task conflict and *group* performance ratings were significantly negatively related, and that the association was weak, although approaching moderate ($b = -.06$, $r = -.37$, $p < .001$). Specifically, as *group* task conflict increased, *group* performance ratings decreased. Thus, Hypothesis 3a was supported.

3b) Individual task conflict and performance ratings. Hypothesis 3b was similar to 3a, although with both task conflict and performance ratings collected using *individual* referents. Hypothesis 3b stated that member perceptions of *individual* task conflict will be negatively associated with appraisals of *individual* performance. Hypothesis 3b was tested by performing hierarchical regression in which performance appraisals were regressed on task conflict, both with *individual* referents. The regression analysis yielded $R^2 = .34$, $F(1, 305) = 160.14$, $p < .001$, indicating that *individual* task conflict and *individual* performance ratings were significantly negatively related ($b = -.12$, $r = -.59$, $p < .001$), and that the strength of the relationship was moderate-to-strong. This suggests that

higher *individual* task conflict is associated with lower *individual* performance ratings. Thus, Hypothesis 3b was supported.

Hypothesis 4(a-b)

4a) Group task conflict, task routineness, and performance ratings.

Hypothesis 4a stated that task routineness will moderate the association between member perceptions of *group* task conflict and appraisals of *group* performance. A strong negative association was expected when task routineness is high and a weak negative association was expected when task routineness is low. The regression equation for task routineness as a moderator of the association between *group* task conflict and *group* performance appraisals is illustrated below (Equation 2).

$$\begin{aligned} \text{Performance Appraisal} = & b_0 + b_1 (\text{Task Conflict}) + b_2 (\text{Task Routineness}) \\ & + b_3 (\text{Task Conflict} * \text{Task Routineness}) \end{aligned} \quad (2)$$

Hypothesis 4a was tested by adding additional blocks to the hierarchical regression analysis of Equation 1. The second block in the hierarchical model involved adding the variable task routineness. Analyses indicated that adding this block did not explain a significant amount of variance, as incremental R^2 after adding task routineness was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 275] = .29$, $p = .59$). The interaction term (i.e., moderator effect) was tested in a third block. Adding this block did not account for a significant amount of variance, as the model's incremental R^2 was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 274]$

= .25, $p = .62$). Thus, Hypothesis 4a was not supported, as task routineness did not moderate the association between *group* task conflict and *group* performance appraisals. Collectively, results indicated that task routineness had no relation to the association between *group* task conflict and *group* performance ratings. A summary of this hierarchical model can be found in Table 8 (p. 74).

Table 8

Multiple Regression Analysis of Moderators of the Conflict-Performance Association with the Group as Referent

Step	Variable Entered	Regression Coefficients			R^2	Model F	ΔR^2	ΔF
		1	2	3				
1	G Task Conflict							
2	Task Routineness	-.06**	-.06**	-.06**	.14	43.53**	—	—
3	G Task Conflict \times Task Routineness		.00	.00	.14	21.85**	.00	.29
				.00	.14	14.61**	.00	.25
1	G Task Conflict							
2	G Affective-Based Trust	-.06**	-.04**	-.04**	.14	46.74**	—	—
3	G Task Conflict \times G Affective-Based Trust		.08**	.08**	.30	61.71**	.16	66.27**
				.00	.30	41.04**	.00	.08
1	G Task Conflict							
2	G Cognitive-Based Trust	-.06**	-.02*	-.02*	.14	45.67**	—	—
3	G Task Conflict \times G Cognitive-Based Trust		.10**	.10**	.44	114.63**	.31	158.67**
				.00	.44	76.25**	.00	.16
1	G Task Conflict							
2	G Cooperative Goal Interdependence	-.06**	-.04**	-.04**	.14	48.37**	—	—
3	G Task Conflict \times G Cooperative Goal Interdependence		.08**	.08**	.36	82.24**	.22	99.65**
				.00	.36	54.65**	.00	.02

Note. Regression coefficients are non-standardized. G denotes measures using the group as a referent.

* $p < .05$. ** $p < .01$.

4b) Individual task conflict, task routineness, and performance ratings. Hypothesis 4b was similar to 4a, although with both task conflict and performance ratings collected using *individual* referents. Hypothesis 4b stated that task routineness will moderate the association between member perceptions of interindividual task conflict and appraisals of individual performance. A strong negative association was expected when task routineness is high and a weak negative association was expected when task routineness is low. The regression equation for task routineness as a moderator of the association between task conflict and performance appraisals is the same as in Equation 2, although using *individual* referents.

Hypothesis 4b was tested by adding additional blocks to the hierarchical regression analysis specified in Equation 1, albeit using *individual* referents. Analyses indicated that adding task routineness did not explain a significant amount of variance, as incremental R^2 was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 276] = .37$, $p = .54$). The interaction term (i.e., moderator effect) was tested in a third block, as done in Hypothesis 4a, except using *individual* referents. Adding the interaction block did not account for a significant amount of variance in the model, as incremental R^2 was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 275] = .04$, $p = .85$). Thus, Hypothesis 4b was not supported. Task routineness did not moderate the association between *individual* task conflict and *individual* performance appraisal ratings. Collectively, results

indicated that task routineness had no relation to the association between *individual* task conflict and *individual* performance ratings. A summary of this hierarchical model can be found in Table 9 (p. 77).

Table 9

Multiple Regression Analysis of Moderators of the Conflict-Performance Association with an Individual as Referent

Step	Variable Entered	Regression Coefficients			R^2	Model F	ΔR^2	ΔF
		1	2	3				
1	I Task Conflict	-.12**	-.12**	-.12**	.33	136.89**	—	—
2	Task Routineness		.00	.00	.33	68.48**	.00	.37
3	I Task Conflict \times Task Routineness			.00	.33	45.50**	.00	.04
1	I Task Conflict	-.12**	-.06**	-.05**	.36	170.03**	—	—
2	I Affective-Based Trust		.10**	.10**	.52	161.84**	.16	98.20**
3	I Task Conflict \times I Affective-Based Trust			.00	.52	108.31**	.00	1.12
1	I Task Conflict	-.12**	-.04**	-.03**	.35	160.24**	—	—
2	I Cognitive-Based Trust		.12**	.12**	.63	245.32**	.27	213.68**
3	I Task Conflict \times I Cognitive-Based Trust			.00	.63	163.58**	.00	.67
1	I Task Conflict	-.12**	-.08**	-.06	.35	160.64**	—	—
2	I Cooperative Goal Interdependence		.08**	.08**	.47	130.18**	.12	65.22**
3	I Task Conflict \times I Cooperative Goal Interdependence			.00	.47	86.68**	.00	.31

Note. Regression coefficients are non-standardized. I denotes measures using the group as a referent.

* $p < .05$. ** $p < .01$.

Hypothesis 5(a-b)

5a) Group task conflict, trust, and performance ratings. Hypothesis 5a stated that *group* trust will moderate the association between *group* task conflict and appraisals of *group* performance. It was expected that there be a strong negative association when trust is low and a weak negative association when trust is high. The hypotheses were tested separately for both subscales of trust (i.e., affect-based trust and cognitive-based trust), as a factor analysis (PAF using direct oblimin rotation) revealed a two-factor solution. The regression equation for trust (both affective- and cognitive-based) as a moderator of the association between task conflict and performance appraisals is illustrated below (Equation 3).

$$\begin{aligned} \text{Performance Appraisal} = & b_0 + b_1 (\text{Task Conflict}) + b_2 (\text{Trust}) \\ & + b_3 (\text{Task Conflict} * \text{Trust}) \end{aligned} \quad (3)$$

Hypothesis 5a was tested by adding additional blocks to the hierarchical regression analysis of Equation 1. Both subscales of trust were assessed separately, beginning with affect-based trust, which was added to the second block of the hierarchical model. Results indicated that *group* affect-based trust significantly increased the amount of variance explained in *group* performance ratings, as incremental R^2 was statistically significant ($\Delta R^2 = .16$, $\Delta F[1, 292] = 66.27$, $p < .001$). The interaction term was tested in a third regression block. Adding the

interaction term did not explain a significant amount of variance, as incremental R^2 for the model was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 291] = .08$, $p = .78$). Specifically, for affect-based trust, there was a main effect, but not an interaction effect, as a predictor of performance ratings. In particular, *group* performance appraisals increased as *group* task conflict decreased ($b = -.04$) and as *group* affect-based trust increased ($b = .08$). A summary of this hierarchical model can be found in Table 8 (p. 74).

Next, *group* cognitive-based trust was examined as a predictor of *group* performance ratings. The regression of performance appraisals on task conflict after adding cognitive-based trust increased the amount of variance explained by the model, as incremental R^2 was statistically significant ($\Delta R^2 = .31$, $\Delta F[1, 288] = 158.67$, $p < .001$). The interaction term was tested in a third block, with results indicating incremental variance explained by the model was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 287] = .16$, $p = .69$). Thus, like affect-based trust, cognitive-based trust exhibited a main effect, but not an interaction effect, on performance ratings. Specifically, *group* ratings of performance increased as *group* task conflict decreased ($b = -.02$) and as *group* cognitive-based trust increased ($b = .10$). A summary of this hierarchical model can be found in Table 8 (p. 74).

In summary, the interaction effect proposed in Hypothesis 5a was not supported. However, despite the lack of an interaction, both *group*

affect-based trust and *group* cognitive-based trust were significant predictors of *group* performance ratings.

5b) Individual task conflict, trust, and performance ratings.

Hypothesis 5b was similar to 5a, although with task conflict, trust, and performance ratings collected using *individual* referents. Hypothesis 5b stated that *individual* trust will moderate the association between *individual* task conflict and *individual* appraisals of performance. A strong negative association was expected when trust is low and a weak negative association was expected when trust is high. Hypothesis testing was again conducted separately for both subscales of trust (i.e., affect-based trust and cognitive-based trust). Likewise, regression equations were the same as in Equation 3, although using *individual* referents.

To test Hypothesis 5b, additional blocks were added to the model found in Equation 1. Affect-based trust was added to the second block of the hierarchical model. Results indicated that incorporating affect-based trust significantly increased the amount of variance explained in *individual* performance ratings, as incremental R^2 was statistically significant ($\Delta R^2 = .16$, $\Delta F[1, 297] = 98.20$, $p < .001$). The interaction term was tested in a third regression block. Adding this block did not explain a significant amount of variance, as incremental R^2 for the interaction model was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 296] = 1.12$, $p = .29$). In summary, for affect-based trust, there was a main effect, but not an interaction effect, as a predictor of performance ratings. Specifically,

individual performance appraisals increased as *individual* task conflict decreased ($b = -.06$) and as *individual* affect-based trust increased ($b = .10$). A summary of this hierarchical model can be found in Table 9 (p. 77).

Next, *individual* cognitive-based trust was examined as a predictor of *individual* performance ratings. The regression of performance appraisals on task conflict after adding cognitive-based trust significantly increased the amount of variance explained, as incremental R^2 for the model was statistically significant ($\Delta R^2 = .27$, $\Delta F[1, 291] = 213.68$, $p < .001$). The interaction term was tested in a third block, with results indicating incremental variance explained by the model was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 290] = .67$, $p = .42$). Thus, like affect-based trust, cognitive-based trust exhibited a main effect, but not an interaction effect, on performance ratings. Specifically, *individual* ratings of performance increased as *individual* task conflict decreased ($b = -.04$) and as *individual* cognitive-based trust increased ($b = .12$). A summary of this hierarchical model can be found in Table 9 (p. 77).

To summarize, the interaction effect proposed in Hypothesis 5b was not supported. However, while the variables did not interact as predicted, both *individual* affect-based trust and *individual* cognitive-based trust were significant predictors of *individual* performance ratings.

Hypothesis 6(a-b)

6a) Group task conflict, cooperative goal interdependence, and performance ratings. Hypothesis 6a stated that *group* cooperative goal interdependence will moderate the association between *group* task conflict and appraisals of *group* performance. It was expected that there be a strong negative association when cooperative goal interdependence is low and a weak negative association when cooperative goal interdependence is high. The regression equation for *group* task conflict as a moderator of the association between *group* task conflict and *group* performance is illustrated below (Equation 4).

$$\begin{aligned} \text{Performance Appraisal} = & b_0 + b_1 (\text{Task Conflict}) + \\ & b_2 (\text{Cooperative Goal Interdependence}) + \\ & b_3 (\text{Task Conflict} * \text{Cooperative Goal} \\ & \text{Interdependence}) \end{aligned} \quad (4)$$

Hypothesis 6a was tested by adding additional blocks to the hierarchical regression analysis of Equation 1. The second block in the hierarchical model involved adding the variable cooperative goal interdependence. Results indicated that cooperative goal interdependence significantly increased the amount of variance explained in performance ratings, as incremental R^2 was statistically significant ($\Delta R^2 = .22$, $\Delta F[1, 289] = 99.65$, $p < .001$). The interaction term (i.e., moderator effect) was

tested in a third block. Adding this block did not account for a significant amount of variance, as the model's incremental R^2 was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 288] = .02$, $p = .89$). Thus, Hypothesis 6a was not supported, as *group* cooperative goal interdependence did not moderate the association between *group* task conflict and *group* performance appraisals. In summary, for cooperative goal interdependence, there was a main effect, but not an interaction effect, as a predictor of performance appraisals. Specifically, *group* ratings of performance increased as *group* task conflict decreased ($b = -.04$) and as *group* cooperative goal interdependence increased ($b = .08$). A summary of this hierarchical model can be found in Table 8 (p. 74).

6b) Individual task conflict, cooperative goal interdependence, and performance ratings. Hypothesis 6b was similar to 6a, although with task conflict, cooperative goal interdependence, and performance ratings collected using *individual* referents. Hypothesis 6b stated that *group* cooperative goal interdependence will moderate the association between *group* task conflict and appraisals of *group* performance. It was expected that there be a strong negative association when cooperative goal interdependence is low and a weak negative association when cooperative goal interdependence is high. The regression equation for cooperative goal interdependence as a moderator of the association between task conflict and performance appraisals is the same as in Equation 4, although using *individual* referents.

Hypothesis 6b was tested by adding additional blocks to the hierarchical regression analysis specified in Equation 1, although using *individual* referents. Results indicated that cooperative goal interdependence significantly increased the amount of variance explained in performance ratings, as the model's incremental R^2 was statistically significant ($\Delta R^2 = .12$, $\Delta F[1, 288] = 65.22$, $p < .001$). The interaction term (i.e., moderator effect) was tested in a third block. Adding this block did not explain a significant amount of variance, as the model's incremental R^2 was not statistically significant ($\Delta R^2 = .00$, $\Delta F[1, 297] = .31$, $p = .58$). Thus, Hypothesis 6b was not supported. In summary, for cooperative goal interdependence, there was a main effect, but not an interaction effect, as a predictor of performance ratings. Specifically, *individual* ratings of performance increased as *individual* task conflict decreased ($b = -.08$) and as *individual* cooperative goal interdependence increased ($b = .08$). A summary of this hierarchical model can be found in Table 9 (p. 77).

Hypothesis 7(a-b)

7a) Final group model regressing performance ratings on significant predictors. Hypothesis 7a originally stated the association between member perceptions of *group* task conflict and appraisals of *group* performance will be best accounted for by examining three proposed moderators simultaneously, namely: 1) task routineness, 2) group trust, and 3) group cooperative goal interdependence. Performance appraisals were predicted to be highest when task routineness is low, when trust is high, and when cooperative goal interdependence is high. In layman's terms, when tasks are nonroutine, when members have trust in their group, and when goal attainment is facilitated by cooperation amongst members, group performance should increase with task conflict, with members acknowledge this via performance appraisals of their group. This omnibus performance model was expected to account for more variance in performance ratings than models examining task conflict with each moderator separately.

Hypothesis 7a was to be tested by adding consecutive blocks to the hierarchical regression analysis of Equation 1, using statistically significant interaction models tested in Hypotheses 4a, 5a, and 6a, in order of the variance accounted (i.e., highest ΔR^2 values). Conversely, all previous interaction models (i.e., moderator effects) were not significant. Thus, examining the intended omnibus model was not possible. Consequently, Hypothesis 7a could not be tested as originally devised.

Revised analysis. Because it was not possible to run the analysis as originally specified, the model was revised to include only previously significant predictors of *group* performance appraisals. This analysis was conducted for exploratory purposes in order to better elaborate the conflict-performance association by examining a collection of theoretically relevant *group* referent variables. Because task routineness was not a significant predictor of *group* performance ratings, it was omitted from the analysis.

The revised *group* referent hierarchical regression analysis is described below. Task conflict was entered in the first block. This was justified because the original research question sought to uncover positive effects of conflict on performance, with task conflict acting as the initial and primary independent variable of interest. Subsequent blocks were comprised of previously significant predictors examining the task conflict-performance association, and were entered in order of variance accounted. The hierarchical model examined is specified in Equation 5, with all variables using the *group* as the referent.

$$\begin{aligned} \text{Performance Appraisal} = & b_0 + b_1 (\text{Task Conflict}) + \\ & b_2 (\text{Cognitive Trust}) + \\ & b_3 (\text{Cooperative Goal Interdependence}) + \\ & b_4 (\text{Affective Trust}) \end{aligned} \quad (5)$$

Hierarchical regression was conducted to examine the significance of predictors of the intragroup task conflict-performance association. As a predictor of *group* performance appraisals, task conflict was significant in the first block ($R^2 = .15$, $F[1, 259] = 43.88$, $p < .001$), *group* cognitive-based trust was incrementally significant ($\Delta R^2 = .31$, $\Delta F[1, 258] = 149.66$, $p < .001$), as was *group* cooperative goal interdependence ($\Delta R^2 = .03$, $\Delta F[1, 257] = 17.28$, $p < .001$). However, *group* affective-based conflict was no longer significant when added to the model ($\Delta R^2 = .00$, $\Delta F[1, 256] = .59$, $p = .44$). In summary, performance ratings were best explained by variance in task conflict, cognitive-based trust, and cooperative goal interdependence. Specifically, *group* ratings of performance increased as *group* task conflict decreased ($b = -.02$), as *group* cognitive-based trust increased ($b = .08$), and as *group* cooperative goal interdependence increased ($b = .04$). A summary of *group*-referent hierarchical model can be found in Table 10.

Table 10
Multiple Regression Analysis of Final Model of the Conflict-Performance Association with the Group as Referent

Step	Variable Entered	Regression Coefficients				R^2	Model F	ΔR^2	ΔF
		1	2	3	4				
1	G Task Conflict	-.06**	-.02*	-.02*	-.02*	.14	45.43**	—	—
2	G Cognitive-Based Trust		.10**	.08**	.08**	.44	110.76**	.30	151.58**
3	G Cooperative Goal Interdependence			.04**	.04**	.48	84.45**	.03	18.16**
4	G Affective-Based Trust				.01	.48	63.29**	.00	.39

Note. Regression coefficients are non-standardized. G denotes measures using the group as a referent. Sample included in analysis was $n = 281$.

* $p < .05$. ** $p < .01$.

7b) Final individual model regressing performance ratings on significant predictors. Like Hypothesis 7a, Hypothesis 7b sought to test the association between *individual* task conflict and *individual* performance appraisals as moderated by 1) task routineness, 2) trust, and 3) cooperative goal interdependence, although using an *individual* as a referent. Performance appraisals were predicted to be highest when task routineness is low, when trust is high, and when cooperative goal interdependence is high. In other words, when tasks are nonroutine, when a member trusts another member, and when goal attainment is facilitated by cooperation, interindividual task conflict should enhance individual performance, with members indicating this via a peer performance appraisal. This omnibus model was expected to account for more variance in peer performance ratings than models examining task conflict with each moderator separately.

Hypothesis 7b was to be tested by adding consecutive blocks to the hierarchical regression analysis of Equation 1, using statistically significant predictors found in Hypotheses 4b, 5b, and 6b, in order of their variance accounted (i.e., highest ΔR^2 values). However, this examination was not possible, as previous interaction models (i.e., moderator effects) were not significant. As result, Hypothesis 7b could not be tested as originally devised.

Revised analysis. Although the model could not be tested as originally devised, it was possible to examine the conflict-performance

association for exploratory purposes as was done for the *group* referent revised analysis. Hence, significant *individual* referent predictors of performance appraisals were added to a hierarchical regression analysis in an effort to better expound upon the conflict-performance association. Task routineness was not a significant predictor of *individual* performance and was therefore omitted from the analysis.

The revised *individual* referent hierarchical regression analysis was as follows. Task conflict was entered in the first block due to the original research question seeking to uncover moderators in the association between task conflict and performance ratings. Subsequent blocks comprised of previously significant predictors of performance were entered in order of variance accounted. The hierarchical model can be found in Equation 6, with all variables framed with the *individual* as a referent.

$$\begin{aligned}
 \text{Performance Appraisal} = & b_0 + b_1 (\text{Task Conflict}) \\
 & + b_2 (\text{Cognitive Trust}) \\
 & + b_3 (\text{Affective Trust}) \\
 & + b_4 (\text{Cooperative Goal Interdependence}).
 \end{aligned}
 \tag{6}$$

Hierarchical regression was conducted to examine the significance of predictors of the interindividual task conflict-performance association. Task conflict significantly predicted performance appraisals in the first

block ($R^2 = .37$, $F[1, 281] = 116.05$, $p < .001$). Additional blocks were significant predictors as well, as *individual* cognitive-based trust being incrementally significant ($\Delta R^2 = .30$, $\Delta F[1, 280] = 254.15$, $p < .001$), as was *individual* affect-based trust ($\Delta R^2 = .01$, $\Delta F[1, 279] = 11.11$, $p < .01$). However, *individual* cooperative goal interdependence was no longer significant when added to the model, although it did approach a marginal level of significance ($\Delta R^2 = .00$, $\Delta F[1, 278] = .3.51$, $p = .06$). To summarize, *individual* performance ratings were best explained by variance in task conflict, cognitive-based trust, and affect-based trust. Specifically, *individual* ratings of performance increased as *individual* task conflict decreased ($b = -.02$), as *individual* cognitive-based trust increased ($b = .10$), and as *individual* affect-based trust increased ($b = .03$). A summary of this hierarchical model can be found in Table 11.

Table 11

Multiple Regression Analysis of Final Model of the Conflict-Performance Association with an Individual as Referent

Step	Variable Entered	Regression Coefficients				R^2	Model F	ΔR^2	ΔF
		1	2	3	4				
1	I Task Conflict	-.12**	-.03**	-.02**	-.02*	.37	166.05**	—	—
2	I Cognitive-Based Trust		.12**	.11**	.10**	.67	284.89**	.30	254.15**
3	I Affective-Based Trust			.03**	.03*	.68	200.50**	.01	11.11**
4	I Cooperative Goal Interdependence				.02	.69	152.59**	.00	3.51

Note. Regression coefficients are non-standardized. I denotes measures using the group as a referent. Sample included in analysis was $n = 283$.

* $p < .05$. ** $p < .01$.

CHAPTER IV

DISCUSSION

The present study examined more closely the association between conflict types, namely task conflict and relationship conflict, and ratings of peer and group performance. Consideration was given to several prerequisites proposed as necessary for conflict to positively influence performance. Specifically, it has been theorized that under certain conditions, task conflict may be beneficial to performance (Brehmer, 1976; Jehn, 1992; Jehn & Bendersky, 2003; Schulz-Hardt, Mayer, & Frey, 2002; Schwenk, 1990; Tjosvold, 1997; West & Anderson, 1996). Prerequisite variables given consideration in this study included the following: task routineness, trust (both affective and cognitive), and cooperative goal interdependence. Also, because of the paucity of research distinguishing intragroup- from interindividual-level frameworks, both group and individual referent data were collected and analyzed. A summary of the research findings and limitations, implications, and suggestions for future research are offered.

Summary of Research Findings and Limitations

The empirical results of this study provide insight into the association between conflict and peer performance ratings. Concerning this association, one avenue of interest was to examine conflict, performance, and moderator variables using both *group* and *individual* referents. Across measures, means and standard deviations of corresponding group and individual referent variables displayed similar patterns (see Table 3). Additionally, interitem correlations of group

measures were similar to interitem correlations of individual measures (compare Tables 4 and 5). Furthermore, correlations between corresponding group and individual measures were moderately related (r 's ranging from .40 to .56 on validity diagonal; see Table 6). Even after altering the referent of items, there were minimal distinctions between group and individual associations; across most analyses, *group* referent results were similar to *individual* referent results. Several potential explanations are offered.

Similarities between intragroup and interindividual conflict-performance associations could imply that conflict is detrimental to performance at both levels. That is, conflict may exert a systematic negative influence on member processes and performance, both between given individuals and collectively within the group. Jehn and Bendersky (2003) propose a number of individual and group reactions to conflict. Negative outcomes of relationship conflict at the individual level include the following: "distraction, misspent time, misspent effort, limits cognitive processes, and decreased commitment" (Jehn & Bendersky, 2003, p. 203). Likewise, task conflict "increases anxiety and tension" (Jehn & Bendersky, 2003, p. 203). However, these authors mention few negative reactions at the group level, instead taking a more positive outlook. Because individuals are those that comprise groups, it may be necessary to consider how both interindividual and intragroup conflict influence *both* group-level and individual-level information processing and outcomes. Evidence from the current study suggests that the association between conflict and performance may be detrimental at *both* group and individual levels. Despite the allure of this notion, few researchers

have examined interindividual measures vis-à-vis intragroup measures. The extent to which conflict and process variables uniquely interact with performance across levels remains understudied, and hence somewhat unclear, particularly at the individual level.

Another possible explanation for similarities between intragroup and interindividual associations may be related to the design of the current study. Participants were required to select an individual from within their work group to serve as a target for individual referent items. A conflict scenario was presented, followed by instructing participants to “[use] the same work group...to select one fellow group member...that best fits the description provided.” Because the target individual was selected on the basis of being a member of one’s work group, intragroup and interindividual measures were non-independent. This increases the likelihood that group referent data overlap with individual referent data due to the target’s common membership in both referent categories. Significant positive associations between corresponding intragroup and interindividual variables offer support for this notion (see validity diagonal of Table 7). This presents a challenge to the current study in distinguishing conclusions at the group level from conclusions at the individual level, particularly when similarities are observed.

A third explanation of the similarity between group and individual associations that cannot be ruled out is related to the rating source itself. Because raters jointly provided ratings for both group and individual referent measures, the observed similarities may be at least partially due to common method variance.

Common method variance refers to a similar response pattern on measures that are in some way related, where the variance is due not to differences in the construct of interest but rather to the data collection method (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Because all participants provided consecutive responses to intragroup and interindividual constructs, using the same scales and anchors, this possibility cannot be dismissed. However, research suggests that common method bias may be less severe when assessing concrete concepts (e.g., satisfaction, performance) as opposed to more abstract concepts (e.g., attitudes; Cote & Buckley, 1987, Feldman & Lynch, 1988).

In general, there were similarities between group and individual conflict-performance associations. As result, all forthcoming associations of the current study will be described without specification to group or individual referents unless noteworthy to distinguish. It is, however, noteworthy to mention that while the proposed associations for individual and group measures often parallel one another, individual associations were somewhat stronger than group associations. There is reason to believe that individual associations would be stronger than group associations. Perhaps it is not always possible to separate conflict management from team member performance. For instance, in their model of team competencies, *conflict management and resolution* is one of several skills team members possess (Cannon-Bowers, Tannenbaum, Salas, & Volpe, 1995). Due the link between team skills and performance (Cannon-Bowers & Salas, 1997), conflict levels likely depend on member conflict management. If so, conflict might better serve as a mediator of the association

between conflict management/resolution skills and performance. Hence, individuals with better conflict management skills would likely receive higher overall peer appraisals than those with poorer conflict management skills. Thus, the association between individual peer appraisals would be expected to demonstrate stronger conflict-performance associations than group appraisals, which become subject to the skill levels and actions of additional members.

A contribution of this research is further empirical support for the findings of previous research. The associations between relationship conflict and task conflict were moderately positively related, in line with the meta-analysis results of De Dreu and Weingart (2003). That is to say, higher levels of relationship conflict were associated with higher levels of task conflict. Also in line with their results were the associations between conflict types and performance.

Associations between relationship conflict and performance ratings were weakly-to-moderately negative. That is, increased relationship conflict was related to decreased levels of performance. Likewise, the associations between task conflict and performance ratings were weakly-to-moderately negative. That is, as task conflict increased, performance levels were poorer. This supports that in their most basic form (i.e., without consideration of moderators) both relationship and task conflict are negatively related to performance.

The primary aim of the study was to uncover circumstances in which conflict might be beneficial to performance. Relationship conflict has been thought of as detrimental to performance (e.g., Jehn & Bendersky, 2003; Jehn & Mannix, 2001; Pelled, 1995; Staw, Sandelands, & Dutton, 1981), and was not

examined further in this regard. However, with certain moderators present, task conflict has been proposed as being potentially beneficial to performance (e.g., Jehn & Bendersky, 2003; Schulz-Hardt, Mayer, & Frey, 2002; Tjosvold, 1997). Thus, the following variables were examined as moderators of the conflict-performance association: task routineness (i.e., the extent to which members perform routine job functions), member trust, and cooperative goal interdependence (i.e., members sharing similar or compatible goals). Because member trust definitions often vary throughout the literature, I distinguished between two types of member trust, namely affect-based trust (i.e., trusting one's intentions) and cognitive-based trust (i.e., trusting one's performance capabilities), examining both as moderators.

However, despite prior theoretical consideration and research support for these moderators, none acted to moderate the association between task conflict and performance. Specifically, under no condition was task conflict positively related to performance ratings. These results were observed among both individual and group analyses. While the proposed moderators did not moderate the task conflict-performance association, several exhibited main effects on performance. Specifically, *group* performance was rated best when task conflict was low, when cognitive-based trust was high, when cooperative goal interdependence was high, and when affective-based trust was high. However, when examined concurrently, affective-based trust was no longer related to performance. In conjunction, *individual* performance was rated best when task conflict was low, when cognitive-based trust was high, when affective-based trust

was high, and when cooperative goal interdependence was high. However, when examined concurrently, cooperative goal interdependence was no longer related to performance.

The results of this research suggest that both task conflict and relationship conflict are detrimental toward *performance ratings*. However, because of the distinction between *performance ratings* and *performance*, this evidence does not necessarily refute the potential benefit of task conflict on *performance*. If the benefits of task conflict are not realized by members, or perhaps contribute to taskwork (i.e., performing equipment- and task-related job functions) at the expense of teamwork (i.e., favorable team interactions and understanding member abilities) high conflict levels may be reflected in detrimental performance ratings (for a review of this phenomenon see Mathieu, Heffner, Goodwin, Salas, & Cannon-Bowers, 2000). Likewise, when conflict is minimal, performance appraisals may result in inflated ratings, perhaps even intentionally, to maintain group cohesion (Wong & Kwong, 2007). Thus, this research serves as a caveat to use caution when interpreting peer appraisal feedback, particularly when there exists moderate-to-high levels of intragroup or interindividual conflict (i.e., task or relationship).

It is worth mentioning that there may have been sampling limitation of the current study. Participants were mostly young adults, which may not necessarily reflect the age of the workforce in general. A reliance on undergraduate introductory psychology students is likely to result in a sample that is disproportionately younger than the general workforce. Also, of the job families

reported among the current sample, approximately 41.5% indicated Food Preparation and Service Related, Sales and Related, or Other. To better represent the general workforce, a snowball sample of working adults was also utilized, though the demographic remained disproportional nonetheless. Given the demographic composition of the current study, participant groups may have been of a more entry-level or service-related nature, which may not require higher levels of intellectual processing or intragroup deliberation of ideas/solutions. It is in the later that the benefits of task conflict on performance are proposed to be most realized. Because task conflict is theoretically related to outcomes involving innovation, creativity, and problem-solving effectiveness (Jehn & Bendersky, 2003), perhaps task conflict should not be beneficial for entry-type job performance, where outcomes such as these may not be relevant performance dimensions. While the variable *task routineness* was examined as a moderator of the conflict-performance association, it may be that task routineness is less conceptually related to valued performance dimensions associated with task conflict and more to general work processes and behaviors. In addition to task routineness, future research may wish to consider the nature of the team, differentiating between *advice and involvement*, *production and service*, *projects and development*, and *action and negotiation* teams with respect to trust and cooperative goal interdependence (for a review of team typology, see Sundstrom, De Meuse, & Futrell, 1990).

Another demographic variable to consider in relation to the results of the current study is participant gender. The majority of the sample was comprised of

female participants (73.4%). According to Gordon (2008), gender-based stereotypes may emerge when managing conflict, which may play a role in conflict resolution and other group outcomes. Examples of stereotypes are that, “men are competitive, women are cooperative; men talk and interrupt more, women use tentative language and seek to please; men threaten and are assertive, while women seek to please and tend to concede” (Menkel-Medow, 2000, p. 358). In the current study, certain gender differences emerged with regard to the conflict-performance association. For the variable *interindividual task conflict*, females ($M = 2.15$) rated their target significantly lower across all conditions than males ($M = 2.48$; $t[309] = 2.37$, $p < .05$). Additionally, the correlation between *individual task conflict* and *individual performance* was significantly stronger among females ($r = -.65$) than males ($r = -.38$; $z = 2.88$). Also, the correlation between *group task conflict* and *group performance* was stronger (though not significant at $p < .05$) among females ($r = -.41$) than males ($r = -.19$; $z = 1.78$). These data indicate that men and women may perceive or manage conflict differently, which, in the case of the current study, would be more inclusive of the female gender. In general, females reported less task conflict than males, and in the presence of conflict, reported more severe performance ratings. Thus, gender may be worthy of consideration when interpreting these and future results.

A final point to mention relates to the amount of conflict reported between individuals and within groups. Participant means were considerably below scale midpoints on intragroup and interindividual measures of task and relationship conflict (see Table 3). Additionally, as part of the manipulation check,

participants rated the extent to which the individual selection statement actually represented the target individual. Responses indicated that statements describing low interindividual conflict (i.e., both relationship and task) were rated as more representative than were high conflict statements. Collectively, these figures suggest levels of intragroup and interindividual conflict were minimal on average, and that participants had difficulty selecting individuals with which they experienced high interindividual conflict. This presents a restriction of range, in which conditions of high conflict were not as represented in the continuum of conflict intensity, potentially limiting the statistical power of the analyses as result. However, results of previous research using Jehn's (1994) measure have reported similarly low conflict means (e.g., Jehn, 1995; Jehn & Mannix, 2001), indicating that low levels of intragroup conflict may be the norm.

A remaining caveat must be discussed when interpreting the results of the current study. While the conflict-performance literature tends to frame conflict as the independent variable and performance as dependent, the reliance on correlational data does not allow for specification of precedence. De Dreu and Weingart (2003) suggest the possibility of reverse causality, namely that group performance may exert influence on intragroup conflict, with higher group performance leading to reduced conflict. It is also feasible that performance plays a role in interindividual conflict. For example, in cases of low performance, conflict may emerge to the extent the individual is "not pulling his or her weight." Due to the correlational nature of this study's data collection methodology, the

causal precedence of the examined conflict-performance associations, like much of the literature on this topic, remains unresolved.

Implications

The relative importance of conflict in teams research remains difficult to estimate despite the theoretical and practical implications of conflict across individual, group, and organizational levels. In the past decade, a number of studies have emerged distinguishing between various types of conflict as well as presenting a number of theoretical associations between conflict and relevant organizational outcomes. Despite the burgeoning body of literature, our knowledge regarding associations related to organizational conflict remains incomplete. Researchers have devised theoretical models of conflict incorporating conflict management styles and techniques, team cohesion, temporal aspects of teams, and have considered several team processes and emergent state variables (for summary see Tekleab, Quigley, & Tesluk, 2009). Nonetheless, there yet remains a great deal of divergence between theory and empirical evidence within the field. As result, consensus is lacking regarding whether conflict may be beneficial to performance and under which circumstances it may act as such. Thus, it is the aim of the present study to offer additional insight on the implications of the conflict-performance association with respect to of the current body of research.

Both task and relationship conflict were found to be negatively related to peer performance appraisals. This was the case even in the presence of several

moderators proposed to elicit the benefits of conflict on performance.

Collectively, this suggests that managers should proceed with caution when attempting to stimulate conflict in order to improve group performance. The process of conflict management, specifically how to deal with conflict in a constructive manner is critical (Rahim, 1983). First, should conflict be promoted, it should be aimed at offering dissenting opinions and views regarding judgments and decision making. Relationship conflict, though expected, may be reduced by managers and leaders skillfully managing conflict constructively (Johnson, Johnson, & Tjosvold, 2006). Constructive conflict management involves being critical of ideas, not people, separating personal worth from criticism of ideas, listening to people's ideas even when you may not agree, and treating others with respect (Johnson et al., 2006). Second, conflict should be related to the intended group performance outcome, namely those involving performance dimensions such as innovation or creativity, and perhaps less so for groups focused on other outcomes (Jehn & Bendersky, 2003; Tjosvold, 1997). Third, it should be noted that the repercussions of conflict likely extend beyond performance outcomes. Consideration for the effects of conflict on emotional reactions, group cohesion, and member satisfaction becomes warranted (Jehn, 1995; Kabanoff, 1991). Guerra, Martínez, Munduate, and Medina (2005) offer the following recommendation pertaining to constructively promoting task conflict:

Task conflict does not negatively influence workers' satisfaction and well-being as long as it occurs in an occupational culture that gives priority to

group objectives and in which it is accepted that reward distribution should be guided by the extent to which these objectives are obtained.

(p. 171)

A primary aim of the current study was to illustrate the conflict-performance association at the level of the individual. Pertaining to the source of information, peers represent a unique, though neglected, perspective. It has been demonstrated that task and relationship conflict are often related (De Dreu & Weingart, 2003); the results of the current study offer further support for this notion. Conversely, research suggests that one form of conflict may lead to another, and that decision makers may not be able to distinguish between various types of conflict due to misattribution (Simons & Peterson, 2000; Torrance, 1957). It may be that individuals do not realize the benefits of conflict, should there be any, and hence such benefits would not be reflected in peer performance appraisals. Thus, if peer feedback is to be used, it becomes likely that high levels of conflict will be associated with deflated performance ratings whereas low levels of conflict will be associated with inflated ratings. Thus, peer ratings should be interpreted carefully in this regard and caution is warranted for uses other than those relating to employee or group development. In addition, it is advisable that multiple rating sources be concurrently examined in order to best capture the conflict-performance association, as it becomes necessary to compare performance outcomes across multiple perspectives in order to differentiate the uniqueness offered by peer ratings.

Suggestions for Future Research

Because little research exists comparing the conflict-performance association at the individual level with the group level, this study provided a direction for future research. Duffy, Shaw, and Stark (2000) provide an impetus for such research by comparing conflict and performance jointly from the perspective of team members, examining both individual and group levels concurrently. In the current study, intragroup and interindividual conflict appeared to operate in similar fashion in many instances, although further research is needed to justify this notion. It is noteworthy to mention that the interindividual associations between conflict and performance were generally stronger than intragroup associations, implying that the effects of conflict on individuals outcomes may be more direct than that of the group. However, this is only speculative, given the design limitation of the current study. Additional research would be needed to test this notion.

In addition, it may be of interest to examine the proposed moderators of the conflict-performance association across various levels of 360-degree feedback, including objective performance indicators as well. It is of interest to investigate whether the conflict-performance association remains stable across various appraisal sources, particularly in comparison to the peer level, where conflict is experienced first hand. Examining various rating sources conjunctively will perhaps better illustrate the association between peers and other sources of performance ratings in relation to conflict.

Future research might also consider the extent conflict is dispersed within groups. For instance, it may be worthwhile to consider differences between moderate conflict that is evenly dispersed between all members versus conflict that is polarized between one or a few members of the group. In the case of the former, intragroup conflict patterns emerge such that all members experience moderate conflict with one another, with group conflict ratings likely to reflect moderate scores. However, in instances where group members become polarized in reaction to conflict, it is unclear how members should theoretically rate group conflict. For instance, if an individual experiences low conflict with three teammates but experiences strong conflict with only one member, then it is unclear whether intragroup conflict should be assigned a low, moderate, or high score. In such cases, particular attention to the individual level may be warranted, as it is unclear to what extent group conflict differences emerge due to the dispersion of conflict between individuals. To my knowledge the notion of conflict dispersion has not been studied extensively in the literature.

CHAPTER V

SUMMARY

This investigation examined the association between relationship conflict, task conflict, and peer appraisals of performance. The association between conflict types and performance appraisals was examined using both the group as a referent (i.e., members provide overall ratings representing the group as a whole), as well as an individual as a referent (i.e., members rate an individual member of the group). In an effort to best explain these associations, several moderating variables proposed in the literature were examined in conjunction with conflict types and performance. These moderators included task routineness, trust, and cooperative goal interdependence.

The study was conducted using both student and working adult participants that had been part of a work group in the past six months. Team members provided ratings of other team members and of the team as a whole, with a number of correlation and hierarchical regression analyses that followed. Results supported that in general, both relationship conflict and task conflict are negatively related to group and individual performance. Contrary to theoretical rationale, the task conflict-performance association was not moderated by any combination of variables proposed. A discussion of the results and suggestions for future research are offered.

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Appendix A

Standardized Recruitment Email

Marc A. Lukasik, Primary Researcher
mlukasi1@depaul.edu

Hello,

Your participation in a survey on individuals who work in a group or team setting is requested. The group or team may include a work group, a volunteer group, or a student project group. If you have worked in a group or team setting in the past six months, then you may be able to help in this research. You may also help by forwarding this questionnaire to others who you think would qualify.

The current study looks at conflict within teams and also between individuals. I am interested in how conflict and performance are related. Participation in this study will involve rating the conflict experienced within your group and between you and another individual group member. Also, you will be asked to rate the performance of the group and the other individual and a few other general properties of the group/individual.

First, to qualify for the current study, your group must have met ALL of the following requirements:

- 1) have three or more members,
- 2) have members recognize themselves as part of the group,
- 3) work together to complete a task or tasks,
- 4) operate within an organization (including non-profits, universities, student group projects, and volunteer organizations).

The study is titled *The Association between Task Conflict, Relationship Conflict, and Peer Performance Appraisals*. It is being conducted as my Master's thesis under the supervision of DePaul University faculty member Dr. Alice Stuhlmacher, Ph.D. I have received my research certification from both the Program for Education and Evaluation in Responsible Research and Scholarship (PEERRS) and the National Institute of Health.

If you meet the above qualifications, are over 18 years of age, understand the requirements of the study and would like to continue, please click the link below.

Note: The following study will take approximately 15-20 minutes to complete. *All responses will be collected completely anonymously and you will in no way be identified with your responses.*

<http://students.depaul.edu/~mlukasi1/ConsentForm>

Appendix B

Informed Consent

INFORMATION SHEET FOR PARTICIPATION IN RESEARCH STUDY

The Association between Task Conflict, Relationship Conflict, and Peer Performance Appraisals

You are being asked to participate in a research study being conducted by Marc Lukasik, a graduate student at DePaul University as a requirement to obtain his Masters degree. The research is being conducted under the supervision of his faculty sponsor, Alice Stuhlmacher, Ph.D. We are asking this of you because we are trying to learn more about the association between conflict and performance, particularly in the context of teams or groups. This study will take about 15-20 minutes of your time. If you agree to be in this study, you will be asked to fill out a questionnaire about your team or group. The questionnaire will involve topics such as conflict, performance, and other general questions about the group's routines. You can choose not to participate. There will be no negative consequences if you decide not to participate or change your mind later.

If you have questions about this study, please contact Marc Lukasik (t) 773-325-4249 or by email at mlukasi1@depaul.edu. If you have questions about your rights as a research subject, you may contact Susan Loess-Perez, DePaul University's Director of Research Protections at 312-362-7593 or by email at sloesspe@depaul.edu.

The questionnaire will collect information that is completely anonymous, meaning no names or identifiers will be collected.

You may print or save this information for your records.

Appendix C

Group Selection Instructions

For this portion of the questionnaire, all items will refer to your work group as whole. This should be a group that you have worked with in the past 6 months. The work group should be one that:

- 1) has three or more members,
- 2) members recognize themselves as part of the group,
- 3) members work together to complete a task or tasks,
- 4) the group operates within an organization (e.g., a business, university, volunteer organization).

Please indicate the type of work group that you are a member. You should refer only to this work group for all questions.

[Note, if you are a member of more than one work group, please refer only to whichever group occupies the greatest portion of your time.]

- 1) Work team (at my place of employment)
- 2) Work team (as a volunteer)
- 3) Student project team
- 4) Other: _____

How many members are in this work team?

- (if not sure you may approximate):
- a) 1
 - b) 2
 - c) 3
 - d) 4
 - e) 5
 - f) 6
 - g) 7
 - h) 8
 - i) 9
 - j) 10
 - k) more than 10

Appendix D

Type of Task Scale (Jehn, 1995)

This measure is intended to gauge the extent to which the tasks in your work group are relatively routine or vary considerably.

Based on the activities typically performed by your group, for each statement please indicate the description that best reflects the tasks performed.

- 1) The type of work done in my work group is fairly consistent, so that people do the same job in the same way most of the time.

1	2	3	4	5
Almost Never		Sometimes		Almost Always
- 2) In my work group, I encounter a lot of variety in a normal day.

1	2	3	4	5
Almost Never		Sometimes		Almost Always
- 3) The methods I follow in my work group are about the same for dealing with all types of work, regardless of the activity.

1	2	3	4	5
Almost Never		Sometimes		Almost Always
- 4) To what extent is there a specific “right way” to do things in your work group?

1	2	3	4	5
Almost Never		Sometimes		Almost Always
- 5) In your work group, to what extent are there specific standards which you must meet in completing your tasks?

1	2	3	4	5
Almost Never		Sometimes		Almost Always
- 6) In your work group, how often is there variety in your job/role?

1	2	3	4	5
Almost Never		Sometimes		Almost Always
- 7) In your work group, how often is your job/role boring?

1	2	3	4	5
Almost Never		Sometimes		Almost Always
- 8) In your work group, how often can you predict how long a task will take?

1	2	3	4	5
Almost Never		Sometimes		Almost Always

9) In your work group, how often does your job/role include problem-solving?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

10) In your work group, how often is there a routine followed in your job/role?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

11) In your work group, to what degree are there set patterns in your work day?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

12) In your work group, how often is your work simple?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

13) In your work group, to what extent is your job/role challenging?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

14) In your work group, in general, how much actual "thinking" time do you usually spend trying to solve specific problems?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

15) In your work group, to what degree does your work include actually performing tasks (rather than planning)?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

16) In your work group, to what degree are there set patterns in your work week?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

17) In your work group, to what degree does your job/role include being creative?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

18) In your work group, to what extent is your job/role tiresome?

1	2	3	4	5
Almost		Sometimes		Almost
Never				Always

19) In your work group, how often does your work give you a sense of accomplishment?

1	2	3	4	5
Almost Never		Sometimes		Almost Always

20) In your work group, to what extent do you feel like you are doing the same thing over and over again?

1	2	3	4	5
Almost Never		Sometimes		Almost Always

Appendix E

Conflict Scale (Jehn, 1994) – Group Referent

This measure is intended to gauge the extent to which conflict is perceived between you and the other members of your work group as a whole.

Based on your interactions with your work group as a whole, for each statement please indicate the description that best reflects the following forms of conflict.

1) How much friction is there among members in your work group?

1	2	3	4	5
Almost		Some		A Great
None				Deal

2) To what extent are personality clashes present in your work group?

1	2	3	4	5
Almost		Some		A Great
None				Deal

3) How much anger is present in your work group?

1	2	3	4	5
Almost		Some		A Great
None				Deal

4) How much emotional conflict is there in your work group?

1	2	3	4	5
Almost		Some		A Great
None				Deal

5) To what extent are there differences of opinions regarding the tasks in your work group?

1	2	3	4	5
Almost		Some		A Great
None				Deal

6) How much disagreement is there in your work group regarding the work being done?

1	2	3	4	5
Almost		Some		A Great
None				Deal

7) How much disagreement is there regarding the task you are working on in your work group?

1	2	3	4	5
Almost		Some		A Great
None				Deal

8) To what extent is there disagreement about ideas regarding tasks in your work group?

1	2	3	4	5
Almost		Some		A Great
None				Deal

Appendix F

Trust Scale (Costigan, Insinga, Berman, Ilter, Kranas, & Kureshow, 2006)
– Group Referent

This measure is intended to gauge the extent to which trust is perceived between yourself and your work group as a whole.

Based on your experiences thus far with members of your group, for each statement please indicate the description that best reflects your level of trust.

1) If I share my problems with my group members, I can count on them to respond constructively and caringly.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

2) Members of my work group have a sharing relationship; we can share our ideas, feelings, and hopes.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

3) I can talk freely to other group members about difficulties I am having at work and know that they will want to listen.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

4) We would all feel a sense of loss if one of our group members was transferred and all of us could no longer work together.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

5) My group members approach their jobs with professionalism and dedication.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

6) Given my group's track record, I see no reason to doubt our competence or preparation for the job.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

7) I can rely on my group not to make my job more difficult by careless work.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

8) Most people (even those who aren't close friends) trust and respect the other members of my group.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

9) Other work associates of mine who must interact with my group consider us to be trustworthy.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

Appendix G

Goal Interdependence Measure (Alper, Tjosvold, & Law, 1998)
– Group Referent

This measure is intended to gauge the extent to which goals between your teammates are related.

Based on your experiences thus far with your work group, for each statement please indicate the description that best reflects how goals are related.

1) Our group members “swim or sink” together.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

2) Our group members want each other to succeed.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

3) Our group members seek compatible goals.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

4) Our group members’ goals go together.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

5) When our group members work together, we usually have common goals.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

6) Group members structure things in ways that favor their own goals rather than the goals of other group members.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

7) Group members have a “win-lose” relationship.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

8) Group members like to show that they are superior to each other.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

9) Group members' goals are incompatible with each other.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

10) Group members give high priority to the things they want to accomplish and low priority to the things other group members want to accomplish.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

11) Each group member "does his/her own thing".

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

12) Group members like to be successful through their own individual work.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

13) Group members work for their own independent goals.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

14) One group member's success is unrelated to others' success.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

15) Group members like to get their rewards through their own individual work.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

16) Group members are most concerned about what they accomplish when working by themselves.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

Appendix H

Performance Appraisal Measure (DeNisi & Peters, 1996) – Group Referent

This measure is intended to gauge the performance of **your work group as a whole**. Based on your experiences thus far with your group, please indicate the descriptor that best fits how **the members of your group as a whole** typically perform on the following dimensions.

1) Reaction to pressure.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

2) Communication skills.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

3) Job knowledge.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

4) Interpersonal skills.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

5) Timeliness.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

6) Problem solving.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

7) Adaptability.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

8) Initiative.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

9) Overall Performance.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

Appendix I

Individual Target Selection Scenarios

The following statement presents a scenario in which conflict between two individuals is described. **Using the same work group, please use this statement to select ONE fellow group member (not including supervisors) that best fits this description.** After reading this statement, you will be asked to recall various experiences with this fellow group member and will answer a series of questions about this person.

[high task conflict]

We often disagree over work related issues.

[low task conflict]

We rarely disagree over work related issues.

[high relationship conflict]

We often disagree over non-work related issues.

[low relationship conflict]

We rarely disagree over non-work related issues.

After thinking about it for a few moments, using the above paragraph, you should choose a fellow group member that BEST fits the description provided. Please choose this person and then proceed to the next question.

How well does the person you have chosen represent the description provided?

1	2	3	4	5
Poorly	Only Slightly	Moderately	Quite A Bit	To A Great Extent

Please provide some additional information on this person:

Age (if not sure approximate): _____

Gender: 1) Male 3) Female

All further questions refer to the individual whom you have determined best fits this description. We will not be collecting the name of this person. Instead, you may refer to this person whenever you see the following phrase: (Insert name)

Appendix J

Conflict Scale (Jehn, 1994) – Individual Referent

This measure is intended to gauge the extent to which conflict is perceived between you and the member of your group you selected.

Based on your interactions with this individual, for each statement please indicate the description that best reflects the following forms of conflict.

1) How much friction is there between you and (Insert name)?

1	2	3	4	5
Almost		Some		A Great
None				Deal

2) To what extent are there personality clashes between you and (Insert name)?

1	2	3	4	5
Almost		Some		A Great
None				Deal

3) How much anger is present between you and (Insert name)?

1	2	3	4	5
Almost		Some		A Great
None				Deal

4) How much emotional conflict is there between you and (Insert name)?

1	2	3	4	5
Almost		Some		A Great
None				Deal

5) To what extent are there differences of opinions regarding the tasks between you and (Insert name)?

1	2	3	4	5
Almost		Some		A Great
None				Deal

6) How much disagreement is there between you and (Insert name) regarding the work being done?

1	2	3	4	5
Almost		Some		A Great
None				Deal

7) How much disagreement is there regarding the task you are working on between you and (Insert name)?

1	2	3	4	5
Almost		Some		A Great
None				Deal

8) To what extent is there disagreement about ideas regarding tasks between you and (Insert name)?

1	2	3	4	5
Almost		Some		A Great
None				Deal

Appendix K

Trust Scale (Costigan, Insinga, Berman, Ilter, Kranas, & Kureshow, 2006)
– Individual Referent

This measure is intended to gauge the extent to which trust is perceived between yourself and the member of your group you selected.

Based on your experiences thus far with this individual, for each statement please indicate the description that best reflects your level of trust.

1) If I share my problems with (Insert name), I can count on him/her to respond constructively and caringly.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

2) Myself and (Insert name) have a sharing relationship; we can share our ideas, feelings, and hopes.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

3) I can talk freely to (Insert name) about difficulties I am having at work and know that he/she will want to listen.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

4) I would feel a sense of loss if (Insert name) was transferred and we could no longer work together.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

5) (Insert name) approaches his/her jobs with professionalism and dedication.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

6) Given (Insert name)'s track record, I see no reason to doubt his/her competence or preparation for the job.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

7) I can rely on (Insert name) not to make my job more difficult by careless work.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

8) Most people (even those who aren't close friends) trust and respect (Insert name).

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

9) Other work associates of mine who must interact with (Insert name) consider him/her to be trustworthy.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

Appendix L

Goal Interdependence Measure (Alper, Tjosvold, & Law, 1998)
– Individual Referent

This measure is intended to gauge the extent to which goals are related between you and the member of your group you selected.

Based on your experiences thus far with your teammate, for each statement please indicate the description that best reflects how your goals are related.

1) (Insert name) and I “swim or sink” together.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

2) (Insert name) and I want each other to succeed.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

3) (Insert name) and I seek compatible goals.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

4) (Insert name)’s and my goals go together.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

5) When (Insert name) and I work together, we usually have common goals.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

6) (Insert name) structures things in ways that favor his/her own goals rather than the goals of other team members.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

7) (Insert name) and I have a “win-lose” relationship.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

8) (Insert name) likes to show that he/she is superior to other team members.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

9) (Insert name)'s and my goals are incompatible with each other.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

10) (Insert name) gives high priority to the things he/she wants to accomplish and low priority to the things other team members want to accomplish.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

11) (Insert name) "does his/her own thing" in comparison to what I do.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

12) (Insert name) likes to be successful through his/her own individual work.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

13) (Insert name) works for his/her own independent goals.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

14) My success is unrelated to (Insert name)'s success.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

15) (Insert name) likes to get his/her rewards through his/her own individual work.

1	2	3	4	5
Strongly	Disagree	Neither Agree	Agree	Strongly
Disagree		nor Disagree		Agree

16) (Insert name) is most concerned about what he/she accomplishes when working by himself/herself.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Appendix M

Performance Appraisal Measure (DeNisi & Peters, 1996) – Individual Referent

Based on your experiences thus far with **(Insert name)**, please indicate the extent that he/she fits the following performance descriptions.

1) Reaction to pressure.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

2) Communication skills.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

3) Job knowledge.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

4) Interpersonal skills.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

5) Timeliness.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

6) Problem solving.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

7) Adaptability.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

8) Initiative.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

9) Overall Performance.

1	2	3	4	5
Poor	Below Average	Average	Above Average	Exceptional

Appendix N

Demographic Information

Please provide the following information about yourself:

- 1) Your Age: _____
- 2) Your Gender:
 - 1) Male
 - 2) Female
- 3) Your Race:
 - 1) American Indian or Alaska Native
 - 2) Asian
 - 3) Black or African American
 - 4) Native Hawaiian or Other Pacific Islander
 - 5) White
 - 6) Multiracial
 - 7) Some other race
- 6) Job Family (for the work group you described earlier):
 - 1) Architecture and Engineering
 - 2) Arts, Design, Entertainment, Sports, and Media
 - 3) Building and Grounds Cleaning and Maintenance
 - 4) Business and Financial Operations
 - 5) Community and Social Services
 - 6) Computer and Mathematical
 - 7) Construction and Extraction
 - 8) Education, Training, and Library
 - 9) Farming, Fishing, and Forestry
 - 10) Food Preparation and Serving Related
 - 11) Healthcare Practitioners and Technical
 - 12) Healthcare Support
 - 13) Installation, Maintenance, and Repair
 - 14) Legal
 - 15) Life, Physical, and Social Science
 - 16) Management
 - 17) Military Specific
 - 18) Office and Administrative Support
 - 19) Personal Care and Service
 - 20) Production
 - 21) Protective Service
 - 22) Sales and Related
 - 23) Transportation and Material Moving
 - 24) Other

Appendix O

Debriefing Form

Thank you for your participation in today's study. In this study you were asked to provide responses to several questionnaires assessing the following variables: conflict, performance, task routineness, trust, and goal interdependence (e.g., cooperative, competitive). Responses were gathered at both the individual and the group level in relation to your teammates. Today's study is part of ongoing research in the field of industrial/organizational psychology.

The purpose of this study was to investigate the association between conflict and performance ratings of individuals as well as the group as a whole. The influence of conflict on performance has been of interest to researchers for some time. While some authors suggest conflict is detrimental to performance, others suggest it may be beneficial if certain conditions are met. Researchers distinguish between two types of conflict, those that involve disagreements of a personal nature (i.e., relationship conflict) and those that involve the way tasks are completed or determined (i.e., task conflict). Relationship conflict is thought to influence performance negatively in all circumstances. However, task conflict is thought to be potentially beneficial under the right conditions, that is, when members engage in nonroutine tasks, when members trust other members, and when members share goals that are cooperative (rather than competitive or independent). The current study was conducted to examine whether certain situations may explain people's performance appraisals of their team and of other group members.

Because the study has not been completed yet, I would ask that you please not discuss the purpose or any details of the study with other persons. This is very important in assuring that all participants have the same information going into the experiment. Participants who know about the study upon participating may jeopardize the results.

Your participation in today's study will potentially further the body of research in this area. Thank you for your participation; it is kindly appreciated. If you have any additional questions or concerns regarding your participation, please contact me at mlukasik1@depaul.edu. You are encouraged to print a copy of this page for your records.

Marc A. Lukasik

M.A./Ph.D. graduate student in Industrial/Organizational Psychology
DePaul University

If you would like to read more about conflict and performance, I suggest the following readings:

De Dreu, K. W., & Weingart, L. R. (2003). Task versus relationship conflict, team performance, and team member satisfaction : A meta-analysis. *Journal of Applied Psychology*, 88, 741-749.

Jehn, K. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly*, 40, 256-282.